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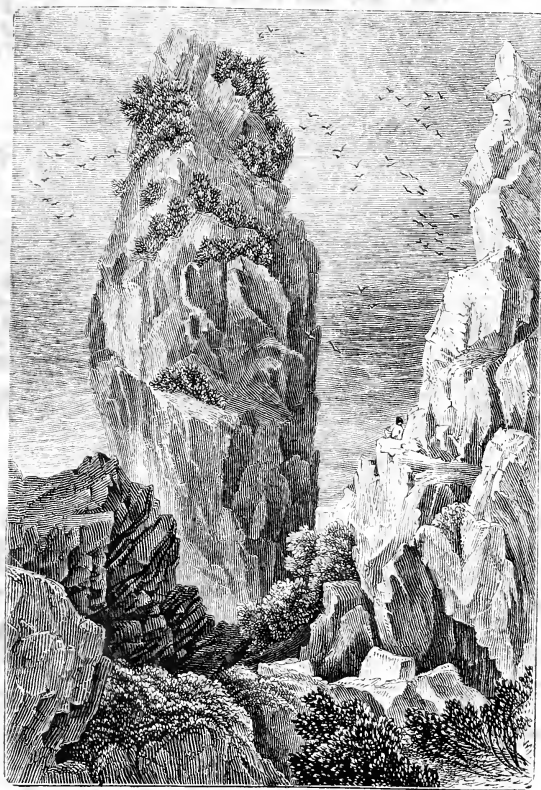
Henry Heffie
June 1953



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THE ELYANGE STACK,
Pembrokeshire, South Wales,
Habitat of the Sea Mallow (*Lavatera arborea*).

THE
BOTANICAL LOOKER-OUT
AMONG THE
WILD FLOWERS
OF
ENGLAND AND WALES,
AT ALL SEASONS,
AND IN THE MOST INTERESTING LOCALITIES.

BY
EDWIN LEES, ESQ., F.L.S.,

FELLOW OF THE BOTANICAL SOCIETY OF EDINBURGH, AUTHOR OF THE BOTANY
OF THE MALVERN HILLS, &c.

SECOND EDITION, REVISED AND ENLARGED.

—“Hours of relaxation so agreeably employed in Botanical Rambles, with a numerous train
of friends, then ardent and curious like myself.” Sir J. E. SMITH, in “ENGLISH BOTANY.”

LONDON:
HAMILTON, ADAMS, & Co.
1851.

"The only way to become Naturalists, in the most pleasing sense of the term, is to observe the habits of the plants and animals that we see around us, not so much with a view of finding out what is uncommon, as of being well acquainted with that which is of every-day occurrence. Nor is this a task of difficulty or one of dull routine. Every change of elevation, of exposure, is accompanied by a variation both in plants and in animals; and every season and week, nay almost every day, brings something new; so that while the Book of Nature is more accessible and more easily read than the books of the library, it is at the same time more varied. In whatever place, or at whatever time, one may be disposed to take a walk, in the most sublime scenes or the bleakest wastes; on arid downs, or on the margins of rivers and lakes; inland or by the sea shore; in the wild or on the cultivated ground; and in all kinds of weather and all seasons of the year, Nature is open to our enquiry."

THE BRITISH NATURALIST.

"One of the greatest charms attached to the study of botany is its giving an interest of the deepest kind to our rambles in the country. A love of plants leads to an enthusiastic admiration of nature, as her beauty or workmanship are displayed in their formation; but still it is not, perhaps, more the love of the objects as such, than the circumstance that their study leads us into every variety of the diversified scenery of the landscape. It affords a constant attraction to the mind, of the most agreeable description, and affords a pleasure in its pursuit that is ever permanent."

Dr. DRUMMOND.

TO
JAMES BUCKMAN, ESQ., F.L.S., F.G.S.,
PROFESSOR OF NATURAL HISTORY
IN
THE ROYAL AGRICULTURAL COLLEGE.

MY DEAR BUCKMAN,

I dedicated my first edition of this work to "the Friends and Companions with whom I have enjoyed the delights of Botanical Exploration;" but in those friends you were then included, and while many others have been swept away from me and from botanical pursuits by the rough blowing of the troublous winds of life, your path has more nearly ran parallel with my own, and with kindred pursuits we have kept each other in view.

The example of your untiring assiduity in scientific research, has often stimulated me to effort when observation might have flagged; and ere I am snapped off by the gust of wintry time and left behind like a withered stalk in its locality, accept this record of my heartfelt regard.

Believe me, yours most sincerely,

EDWIN LEES.

Henwick, Worcester,
May 1st, 1851.



PREFACE TO THE FIRST EDITION.

I WILL admit *in limine* that I am not here writing to instruct the professional student of Botany. Neither do I aim to surprise my brother botanists by any new arrangements in classification or discoveries in physiology. But if I take a humbler rank than the dignity of science may seem to warrant, and thus make no advances in their estimation, still I hope I may be in some degree *useful* in attracting the *many* to the pleasures afforded by an examination of plants in their wild localities, and thus, indirectly at least, subserve the cause of Natural History, by enlisting recruits, whose enthusiasm may perchance be awakened by my incitations to observation and adventure.

In my experience as a practical collecting botanist for some years, I have invariably found that however my botanical friends might take fire at the exhibition of my specimens or the mention of their habitats, that the uninitiated in these things were unable to comprehend the sources of my pleasure, and could not understand on what principle I could experience delight in making long journeys, and taking fatiguing rambles, merely in search of plants. On the other

hand, Botany forming no part of general education, even at the present moment, I have very often met with ladies and gentlemen of highly cultivated understandings, open to all the charms which the beauties of external nature ever exercises upon sensitive minds—who, perhaps, fully understood the motions and orbits of the planets, and knew their relative distances, their satellites, and their atmospheres, and could even speculate on the constitution of their inhabitants, while the plants beneath their feet, on their own earth, were unknown and almost entirely unregarded. Thus fully realizing the old fable of the Grecian sages, who journeyed to the moon, and returned without examining a tittle of its productions, except the smoking viands that the hospitality of the inhabitants had placed before them! This neglect of physical and mental enjoyment lying within the reach of almost every body, appears to me to arise from a false supposition that the toils attendant upon the study of Botany would greatly counterbalance any pleasure to be derived from it. In these papers, then, I aim to show how incorrect such a conclusion is;—and, in monthly order, my object has been to produce delineations which, even to the general eye of those unfamiliar with botanical terms, shall offer charms which may tempt the leisure of those who desire a pleasing and instructive occupation; while I have introduced *incident* to show that the botanist during his rambles may still look out with all the gusto of a traveller superadded to his scientific examinations—

while the stores of his collecting-book will make "a wet day at an inn" very different from "the wet day" so graphically described by WASHINGTON IRVING.

It unfortunately happens that the majority of botanical works contemplate instructing pupils determined to be *professionally* devoted to the study they develop; but as comparatively few non-medical persons contemplate such an entire dedication of their time as this supposes, they soon shrink from the armed array of technicalities that they see enclosing them around, and give up the attack in despair—finding, as in the old editions of *ÆSOP'S Fables*, that "*the moral*" is so lengthy when compared with the tale. Other "Introductions" throw down their sugared lumps for the mere child, forgetting that the child, if a student of botany at all, requires not this "gilding of refined gold," or "painting the lily,"—the zest of occupation and wandering abroad being a sufficient stimulus for *him*. It is the adult, never led to think of Botany in his youth, that requires to be *tempted*, and this can be only done by pointing out the *pleasure* and *satisfaction* resulting from a personal examination of

" Every herb that sips the morning dew."

I therefore claim to be on the *recruiting service*, and with this special object in view, amid "the world of light, and dews, and summer airs," I have brought together from the woods, meads, and mountains, those delicate gems that seemed best suited for the purpose I had in view—

“ Beneath the trees I sat

Among the flowers, and with the flowers I played.”*

Treating the subject thus lightly, I may hope to attract some whose attention would shrink from the study of more laboured treatises—and the ardent enquirer, if he accompanies me for *excitement*, will find abundant works before the public, where the sparks here kindled, may contribute fuel to the *continuation* and *duration* of the scientific flame he desires to nourish with increasing and perennial vigour. Even the proficient in botanical study may not be displeased with the allusions made to the *habitats* of some of his favourites; since as iron sharpeneth iron, so is enterprise awakened by the narration of the humblest pilgrim to the shrine that is the object of the reverence of his fraternity.

* WORDSWORTH.

NOTE TO THE SECOND EDITION.

Another edition of this work has been long called for, and having received many friendly testimonies of its utility in the path it was intended to occupy, I have been induced to revise and enlarge it. Many fresh scenes of rambles and additional localities for plants have been introduced, with a view to render the student more conversant with "the time of flowers;" and particularly noting those most likely to meet his view at whatever period an excursion might be taken.

Still it must be understood that this book is of the *incitative* class, offering friendly aid to the neophyte over the stepping stones of research, and conducting to that enjoyment which, to be fully understood, requires pleasing outline and suggestive colouring. To the practical observing botanist, it may be considered like the brandy-bottle or pocket-pistol on an excursion, as offering an exciting poetical draught to the tired spirits, waking up the mind to renewed effort and perseverance, with moral superadded to technical enjoyment.

E. L.

*Cedar Terrace,
Henwick, Worcester,
May, 1851.*

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ENGRAVINGS
OF
PRIVILEGED LOCALITIES OF PLANTS,
IN THE
BOTANICAL LOOKER OUT.

The ELYANGE STACK, Pembrokeshire, South Wales, Habitat of
the Sea Mallow (*Lavatera arborea*). .to face the Title Page.

Limestone ledges of the Great Orme's Head, Llandudno, Caer-
narvonshire, Habitat of the *Cotoncaster vulgaris*, *Silene*
nutans, &c.to face page 24

Symond's Yat, a lofty limestone rock on the banks of the Wye,
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and numerous other trees and plantsto face page 193

Rocks of White Pebble Bay, near Ilfracombe, Devonshire, Habi-
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INTRODUCTION.

ON THE HABITATS OF PLANTS—THEIR PARTIALITIES TO
CERTAIN SOILS AND LOCALITIES—THEIR IMMIGRATIONS,
AND PECULIAR STATIONS OF THE RARER ONES.

“ From lea to croft, from mead to arid field ;
Noting the fickle seasons of the sky,
Changes of herbage, and salubrious flowers.”

DYER'S FLEECE.

To know where plants grow, and how to collect them with the greatest facility, is the first aim of the botanical neophyte. Most alluring and conspicuous when in flower, they are best observed at the period of their inflorescence, but, as this varies with different families and species, the exact time of the flowering of each becomes a matter not merely of curiosity but of importance. Hence the utility of a vegetable calendar, that shall be indicative of “the time of flowers,” and displaying each season, as it advances or declines, proclaim to the enquirer what he is likely to find in bloom in any month or week when he contemplates an exploration. A plant that is not sought for, unless it be a very common one, is not likely to be found; and I have myself frequently been in the vicinity of curious productions, which escaped my observation, from my ignorance of their being within my reach, at the time of my sojourn near them. Much then

is always to be gained by *forehand* knowledge in this respect. As I have shown in a paper in Mr. NEWMAN's botanical periodical, "*The Phytologist*,"* the authors of our systematic Floras have not been especially careful to set down the flowering-time of plants with perfect exactness, and this *out-of-door* work, neglected by them, I have felt it incumbent on me more especially to attend to. It is indeed self-rewarding, as any one will find who takes it up, while the instruction it affords in working out a calendar of coincidence of the birds, insects, and other zoological objects that seem to synchronize with the appearance of certain flowers, is not to be neglected, but well repays the attention. In my floral progress through the various months I shall dilate further upon this point.

The botanist who, in his wanderings, attends to the *habitats* of plants, and the affinities many of them have for certain soils, or mineralogical strata, will be certain to find a greater number than he who roams about indifferently, leaving chance to direct his movements. This deserves to be well considered by the practical collector, since it often happens that miles of country may be painfully traced to no purpose, without one remarkable plant being exhibited, while a single favourable locality may contain nume-

* See *The Phytologist*, for 1848, for a paper of mine on the "acceleration of the flowering of plants and frondescence of trees," in that very forward spring. Mr. KEYS and other observers have, like myself, noticed that technical botanists have not been very exact, in stating distinctly the first appearance of a plant in flower, and the length of its continuance in that state; but these points are surely deserving of notice, for, as Dr. UNGER observes, "the time of flowering of each plant is important, because it characterizes the climate, and may serve as an index to agricultural experiments."

rous uncommon plants in the space of a few yards. The spots, therefore, most likely to harbour plants, should be carefully sought and diligently explored.

It has been a disputable matter whether geological formations exercise any remarkable influence upon vegetation, and DE CANDOLLE was of opinion that they did not, nor do I believe that the *geological age* of any strata are indicated by its plants; but as Dr. F. UNGER has well remarked, in his *Flora of the Western Tyrol*, "It cannot be denied that *calcareous* strata possess a flora very different from that of all others. ZUCCARINI and SIEBER observed this fact, on the south side of the Alps; in the Carpathian mountains WAHLENBERG counted forty-three plants which belong to a calcareous soil; and he made the same observation in Sweden. On the new continent MARTIUS was struck with the same facts, in the neighbourhood of the river of San Francisco, where the chalk begins; he there perceived vegetation to assume a peculiar character, remarkable for the predominance of certain forms."* Limestone, then, seems a very congenial pabulum for many plants, which if not entirely confined to it, abound with greater luxuriance there, and the presence of a calcareous soil may be inferred by the presence of such species, while they may be looked for with great probability, and often certainty, on the margin of limestone quarries. Such plants are,

Clematis Vitalba

Draba incana

—— muralis

Hutchinsia petraea

Viola hirta

Silene nutans

Anthyllis vulneraria

Hippocrepis comosa

* UNGER, on the influence of the nature of the soil upon the distribution of vegetables, in *Mag. Nat. Hist.*, vol. ii., N. S., p. 77.

Onobrychis sativa	Chlora perfoliata
Poterium sanguisorba	Bartsia odontites
Pyrus Aria	Linaria minor
Galium tricornu	Origanum vulgare
—— pusillum	Juniperus communis
Viburnum Lantana	Orchis pyramidalis
Conyza squarrosa	Ophrys apifera
Helminthia echioides	—— muscifera
Picris hieracioides	Avena pubescens
Lithospermum officinale	Sesleria cærulea
Gentiana amarella	Carex digitata.

Woods on a calcareous soil are, therefore, very favourable habitats for numerous plants, and almost sure to repay the toil of a careful search; while on a cold clay vegetables having but a slight affinity for alumina, very few of any interest would be met with. How beautiful, beneath the hedges of a limestone height, shines at noon the golden stars of the glaucous-foliaged yellow-wort; while in groves on such a sub-stratum the beautiful Wood-vetch (*Vicia sylvatica*) delights to twine its azure-lined flowers among the trees. In such localities as at Whitecliff Woods, near Ludlow, on Silurian strata, the purple *Epipactis latifolia* stands in tall luxuriant ranks; while, even in winter's denuded reign, the plummy seeds of *Clematis vitalba* wreathed fantastically on high among dark branches, seems like down fallen from the skies, or a supernatural hoar frost, and points out the abandoned limestone quarry from afar. But, although so many plants thus delight in a *calcareous* soil, they do not absolutely distinguish the *geological system* on which they grow, most of those I have enumerated occurring as well on the *lias* as the *Silurian* limestone; though perhaps the *Ceterach* fern, and the lichen *Squamaria crassa*, rather prefer the

carboniferous strata. The Lichens of the genera *Collema* and *Urceolaria*, and *Lecidea immersa* and *rupestris*, are in general very partial to calcareous rocks, especially about old quarries; and *Collema nigrum* delights to occupy the surface of exposed oolite. The Extinguisher-Moss (*Encalypta streptocarpa* and *vulgaris*), also well points out calcareous strata.

The Chalk has been celebrated in Britain for the beautiful *Orchidiæ* it nourishes, as *O. militaris*, *O. ustulata*, and the singular Man, Monkey, Drone, and Spider orchises, scarcely met with except on chalky soil; hence several beautiful localities, as Box Hill, in Surrey, are celebrated for and resorted to by botanists for such rarities, and thus local botany, from the peculiarities affected by plants, merits particular attention. Some other rare plants, as *Anemone Pulsatilla*, *Seseli Libanotis*, *Phyteuma orbiculare*, *Cineraria campestris*, and *Barkhausia fœtida*, particularly affect chalky pastures, so that to some extent the plants of a district will be limited by mineralogical considerations. Yet the boundary line may not be very strictly observed, and where a neighbouring formation is in many respects similar, there the same plants will be found on geological strata of very different ages. Thus *Anemone Pulsatilla* grows on the oolite of the Cotswold hills as well as on the chalky downs of Cambridge and Herts; so also *Cineraria campestris* is met with on the oolite hills near Cheltenham; while *Carex digitata*, a peculiar rock plant, flourishes on the woody precipices that decorate the banks of the Wye, nor is less at home on the fallen oolitic blocks that strew the Cotswoldian woods with ruinous debris.

Sandy strata present in general a suite of peculiar plants, or those at least as luxuriate best in such a soil, while there are very local ones, as *Tillæa muscosa*, and *Veronica verna* and *tryphyllos*, which are only found in such situations. The following are observed to prefer sandy commons and fields.

Turritis glabra	Trifolium striatum
Teesdalia nudicaulis	———— arvense
Silene Otites	Jasione montana
Silene conica	Centunculus minimus
Silene Anglica	Lamium amplexicaule
Arenaria peploides	Scleranthus annuus
———— rubra	Phleum arenarium
Radiola millegrana	Festuca Myurus
Erodium cicutarium	Elymus arenarius
Trifolium suffocatum	Carex arenaria
———— scabrum	

Many plants are common to several rocks and soils, and therefore it is chiefly upon isolated hills and elevated summits, where nature retains its pristine aspect, and where cultivation has not penetrated, that the mineralogical condition given to the formation, exercises the most material influence in determining the existence of particular plants. It might be consequently expected that granitic and igneous rocks would have some characteristic plants, independent of their altitudinal character. But as secondary and tertiary strata, as well as diluvial gravel, are nothing more than modified ancient rocks, this is not so much the case as might be imagined, and many species are equally found upon igneous rocks and on gravel. So several conspicuous plants often growing on granitic or basaltic heights, occur also on calcareous rocks, as *Veronica spicata*, which is abundant on the Brithen

mountain, in Montgomeryshire, but is as plentiful on the carboniferous limestone of the Great Orme's Head, and flourishes also on the limestone of St. Vincent's rocks, near Bristol; it is seen also plentifully on the metamorphic rocks at Barmouth. Yet some species evince an affinity not to be mistaken, for *Gentiana amarella* appears always on calcareous soil, while *Digitalis purpurea* shrinks carefully from the latter position. I observed this last plant upon Craig Diganwy, an igneous precipitous hill between Conway and the Orme's Head, in 1849, but it disappeared directly I trod the limestone, nor could I discover a single specimen throughout the whole Orme's Head promontory and adjacent calcareous rocks. The following may be considered as more particularly indicating igneous or primitive rock, or to be sought there.

Corydalis claviculata	Saxifraga umbrosa, and
Arabis petræa	allied forms
Draba rupestris	Saxifraga oppositifolia
Galium saxatile	———stellaris & hypnoides
Viola lutea	Dryas octopetala
Silene acaulis	Alchemilla alpina
Lychnis viscaria	Hieracium alpinum
Lychnis alpina	Veronica saxatilis
Cherleria sedoides	V. alpina and fruticulosa
Spergula saginoides	Digitalis purpurea
Mœnchia erecta	Antericum serotinum
Arenaria verna	Salix herbacea
Cerastium alpinum	Luzula arcuata
Cotyledon umbilicus	Carex ustulata
Rhodiola rosea	C. atrata and pulla
Sedum album	C. rigida
——— villosum	Allosorus crispus

Some of these are not entirely confined to primitive or volcanic formations, but they may be generally

found in such situations. Yet I think the LICHENS to be surer indications of igneous rocks. *Lecanora glaucoma*, *L. ventosa*, *L. coccinea* and *tartarea*, *Parmelia omphalodes*, *P. Fahlunensis*, *P. stygia*, and *P. aquila*, are good indicators of eruptive masses; and so also are *Gyrophora proboscidea*, *G. erosa*, and *G. cylindrica*. The curious tinder-like Blistered Umbilicaria (*U. pustulata*), is almost peculiar to granitic rocks.

On steep hills and downs, where *thyme* delights to spread its aromatic odour upon the breeze, and the turf is kept down by the nibbling of the sheep, the grasses, clovers, and other plants become excessively minute, as may be witnessed on the chalk pastures of the Isle of Wight, or the sides of the beauteous Malvern hills. This circumstance is thus alluded to by DYER, in his poem of *The Fleece*, in intimating the best and most favourite sheep walks.

“ On spacious airy downs, and gentle hills,
 With grass and thyme o’erspread, and clover wild,
 The fairest flocks rejoice ! * *
 * * they crowding round, with silence soft
 The close wov’n carpet graze ; where nature blends
Flow’rets and herbage of minutest size,
 Innocuous luxury.”

The same author also pleasingly mentions some of the plants that distinguish *chalk soils*, and adverts to the wide airy downs, then all unenclosed, and whitened over with numerous flocks. Similar excursive views, though with other objects in view, are taken by the botanical explorer.—

“ All arid soils, with sand, or chalky flint,
 Or shells diluvial mingled ; and the turf
 That mantles over rocks of brittle stone,

Be thy regard : and where *low tufted broom*,
 Or *box* or *berried juniper* arise ;
 Or the tall growth of *glossy-rinded beech* ;
 And where the burrowing rabbit turns the dust,
 And where the dappled deer delights to bound.
 Such are the downs of Banstead, edg'd with woods,
 And tow'ry villas ; such Dorcestrian fields,
 Whose flocks innumerable whiten all the land :
 Such those slow-climbing wilds, that lead the step
 Insensibly to Dover's windy cliff,
 Tremendous height ! and such the clover'd lawns
 And sunny mounts of beauteous Normanton,
 Health's cheerful haunt ; * * *
 * * * * such the spacious plain
 Of Sarum, spread like ocean's boundless round,
 Where solitary Stonehenge, grey with moss,
 Ruin of ages, nods."

Dry and exposed granitic syenitic and trappoid heights, however, such as the Malvern hills, and even many of the mountains of Wales, rather answer to the description of "*herbless* granite," than are remarkable for many botanical rarities. Yet serpentine, rare in Britain, but which forms a limited tract in the vicinity of the Lizard, in Cornwall, has been famed in botanical record, for its nourishment of the beautiful Cornish heath, *Erica vagans*, which is almost confined to this mineralogical formation. The Rev. C. A. JOHNS, in his account of the Lizard, says, "The great characteristic in the botany of this (the Lizard) district is the extreme abundance of the Cornish or Goonhilly heath. It may be said to grow over the whole country, from Mullion to the Black-head, except where it has been extirpated by the plough. Every hedge bank and road-side is full of it, and, if we enter the cottages, *turf composed of it*,

mixed with smaller plants, is the only fuel."* The flowers of this heath are white, rose-coloured, or light purple, producing a very pretty effect.

The serpentine, at least in Britain, produces several rare plants not to be found elsewhere, one of which is the fringed Rupture-Wort (*Herniaria glabra*), hence the Lizard district, in Cornwall, is one of the most interesting localities that can be visited by a student in British botany. The Red Broom-rape (*Orobanche rubra*), is another rare plant, which, though parasitical on the roots of broom, furze, clover, &c., yet, by some unaccountable affinity, is only found on basaltic rocks. It occurs on the cliffs of Kynance, Cornwall, on the Giant's Causeway, and at Staffa.

Gravelly commons possess several plants that occur also upon trap-rocks, and their general productions, such as minute Clovers (*Trifolium repens*, *fragiferum*, *minus*, and *filiforme*), *Ornithopus perpusillus*, *Plantago coronopus*, &c., will be much the same, whether the gravel be granitic, diluvial, or tertiary. Thus the vegetation on the primitive gravel of the extensive green spreads of Welland Common, and others at the base of the Malvern Hills, in Worcestershire, is repeated on Ealing Common, and other waste spots in Middlesex, even to the Chamomile (*Anthemis nobilis*), and the rarer *Bupleurum tenuissimum*. Much will depend, however, upon the presence or absence of water, in pools or minute rills. If the former present themselves, the species of *Callitriche*, *Myosotis*, and *Bidens*, are sure to occur, and *Ranunculus sceleratus* and *Pulicaria vulgaris* will be conspicuous plants. Little prills and marish spots will nurse such species

* *A Week at the Lizard*, by the Rev. C. A. JOHNS, p. 269.

as *Ranunculus flammula*, and *hederaceus*, *Nasturtium terrestre*, *Cardamine hirsuta*, *Montia fontana*, *Peplis Portula*, *Epilobium palustre*, *Helosciadium nodiflorum*, and *repens*, *Pedicularis sylvatica*, the characteristic Gipsy-wort (*Lycopus europæus*), and several of the Mint tribe (*Mentha hirsuta*, *piperita*, and *Pulegium*), as well as *Polygonum minus*, peculiar to such wet gravelly spots. Besides these more obvious species, *Blysmus compressus*, several of the genus *Heliocharis*, and numerous *Carices* may be found. If the ground be very dry, some of the water plants will be much diminished in size, and the vegetation, characteristic of so many of our old village greens and dry commons, will appear, where the long trailing knot-grass (*Polygonum aviculare*), a scrubby growth of dark tufted rushes, sedges, and mat-grass (*Nardus stricta*), with scurvy specimens of dissightly weeds, belonging to the *Chenopodium* and *Atriplex* families, skulk around the ragged broken-paled pound, and lichen-covered dis-used stocks. Creeping lowly in such open spots, as if to escape the parian pigs and geese that take refuge there, several species of *Cerastium*, *Sagina*, and *Filago* herd, as if rejected from better places; and here many frequent, yet inconspicuous or procumbent plants occur, as *Polygala vulgaris*, *Hypericum humifusum*, *Linum catharticum*, *Potentilla anserina*, *Potentilla Tormentilla*, *Carlina vulgaris*, *Chrysanthemum inodorum*, and such like branded commoners.

The hard and dry *Red Marl*, that covers so large an extent of country in the Midland Counties of England, though unfavourable to most of the rarer species, has yet some that if not peculiar to it, I have observed to grow in great plenty and luxuriance

there. The following may be particularly enumerated :

Nasturtium sylvestre	Campanula patula
Isatis tinctoria	----- trachelium
Brassica campestris	Tanacetum vulgare
Sinapis nigra	Centaurea Scabiosa
Dianthus Armeria	Ligustrum vulgare
Rhamnus catharticus	Salvia verbenaca
Lathyrus Nissolia	Ballota nigra
Pyrus torminalis	Nepeta cataria
Pastinaca sativa	Galeopsis Ladanum
Ænanthe pimpinelloides	Thymus Calamintha
Sison Amomum	Colchicum autumnale
Petroselinum segetum	Allium vineale

In recording the habitats of plants, as affected by soils, the interlopers that attend upon *manured arable lands* must not be lost sight of by the careful botanical observer.

The corn field, when approaching to maturity, in the height of summer, often blazes with gorgeous stranger-plants,—*agrarians* as they may be called,—that seem almost unknown anywhere, except as attendant ministers upon the gifts of Ceres. Here the courtier poppy lifts his scarlet turban, and slowly rises from apparent somnolency; here, too, the brilliant golden Corn-marygold (*Chrysanthemum segetum*), uselessly gems the field; and the Blue-bottle (*Centaurea Cyanus*), and Corn-cockle (*Agrostemma Githago*), shine brilliantly indeed, but, like ornaments on the breast of beauty, adding no intrinsic value to the spot where they sparkle. But how came these strangers among us, and how are they propagated? Did the first settlers in our island bring corn with them, or did Phœnician vessels impart the god-like boon? In either case, mixed with the seed corn—"rubicunda

Ceres"—came these corn-plants to cast an unwonted radiance upon our sunny slopes; to show in their magnificence the nullity of splendour; and yet to point out how ornament and utility may go hand in hand, by emblazoning a border of coloured embroidery upon the plain and homely frieze garment of Agriculture.

Corn seems to have been carried by man into every part of the globe where he has wandered, and, along with the different species of corn, various plants have been carried, now often considered indigenous. But these have probably not all immigrated at once, some are earlier, some later colonists, and others, like the *Trifolium incarnatum*, which I have gathered by the road-side, in Shropshire, have scarcely yet received an act of naturalization. It may be curious to allocate together the principal of these *Agrarian Colonists*.

Adonis autumnalis
 Ranunculus arvensis
 Papaver hybridum
 ——— Rhœas
 Rœmeria hybrida
 Fumaria capreolata
 Erysimum cheiranthoides
 Camelina sativa
 Brassica Rapa
 Agrostemma Githago
 Linum usitatissimum
 Melilotus officinalis
 Medicago sativa
 Vicia sativa
 Lathyrus Aphaca
 Onobrychis sativa
 Coriandrum sativum
 Bupleurum rotundifolium

Carum Carui
 Chærophyllyllum sativum
 Myrrhis odorata
 Smyrnium olusatrum
 Campanula hybrida
 Chrysanthemum segetum
 Matricaria Chamomilla
 Anthemis nobilis
 ——— arvensis
 Centaurea Cyanus
 Sonchus arvensis
 Borago officinalis
 Galeopsis versicolor
 Linaria spuria
 ——— Elatine
 Polygonum lapathifolium
 ——— Fagopyrum
 Phalaris canariensis

Buckwheat (*Polygonum Fagopyrum*), is probably of

very late introduction, and several species of *Cuscuta* have been undeniably imported with seeds from abroad in the present day. Mr. JAMES MOTLEY discovered *Malva verticillata* in company with *M. crispa* in corn-fields near Llanelly, Glamorganshire, a few years ago, both perhaps escapes from gardens; and Dr. BROMFIELD has recorded, in the *Phytologist*, how *Melampyrum arvense* was introduced into the Isle of Wight with seed corn from the eastern counties. All arable ground, manured soil, or abandoned gardens, must then be viewed with distrust, and the plants upon them considered at best as only in a naturalized state, or introductions of cultivation. European plants are thus now carried by voyagers into the western regions of the world, as of old continental plants migrated to Britain. Indeed, as WILLDENOW observes, "the wars in which different nations have been engaged, their migrations, and crusades, the travels of different merchants, and commerce itself, have brought a number of plants to us, and transplanted ours to foreign countries. Almost all our culinary plants came from Italy or the East, as well as most species of corn." *

* The rotation of cultivation that any piece of land undergoes, must undoubtedly greatly affect the plants spontaneously growing upon it, which, in the event of a *change of crop*, will be unable to maintain their position, and for a period they may altogether disappear, whilst new weeds will creep in with the fresh seed. On the other hand, a fallow piece will invite the immigration of a host of intruders, who can, however, scarcely have time to mature their projects, and fly off, before the plough dislodges them. It sometimes happens that flowers exist in a field, which being annually mown for hay, they have not time either to produce their blossoms, or mature their seeds, before the crop is carried off. In this case they may remain in obscurity for many years, until the pasture being left for grazing, they then rise up to flower, and seed profusely, in the hussocky spots, which cattle are sure to leave at intervals, and surprise the eye by their unexpected appearance. But when an

Next to *Agrarians*, we may notice those interlopers or garden *Stragglers* who, coming to the land originally as entire strangers, have taken the first opportunity of escaping from their narrow bounds, and become *squatters* on their own account. Some of these, as the Wall-flower, great Periwinkle (*Vinca major*), *Myrrhis odorata*, Red Valerian, and *Teucrium Chamædrys*, have been so long "out on the tramp," as almost to seem entitled to indigenous botanical societyship; while with others, as in *Papaver somniferum*, the great Snapdragon (*Antirrhinum majus*), and *Melissa officinalis*, we see how the garden sends away its outcasts. In fact we have only to notice the manner in which many garden plants spread about and wander from their own domiciles, to be satisfied that this cause has operated from the earliest periods, when man advanced his colonies upon distant islands and shores, with the gifts of Ceres and Pomona. I noticed long since how the common Parsley (*Petroselinum sativum*), had stolen out of the garden of my then residence, and so passed the threshold of cultivation. Now it grows in profusion on the rocky Isle of St. Catharine, near Tenby, Pembrokeshire, no doubt propagated from the plants originally in the garden of the priest who on that rock once ministered in holy things to the believing if superstitious seamen of his day, and there cultivated it in his little garden of herbs.

arable field is sown with artificial grasses, or vetches, such plants as *Lolium Italicum*, or *Setaria viridis*, will appear, and maintain a precarious existence, while the ground remains in pasture, or is fallowed, till the plough again sweeps them away, and the botanist scours round the corners of the field and its boundary banks in vain for what he saw and gathered a few years before.

The monks and hermits of the early ages of Christianity led many plants in their train, which have stopped behind them, to memorialize the attention they paid to the study of their qualities. Such probably are Helecampane (*Inula Helenium*), Sweet Cicely (*Scandix odorata*), and Vervain (*Verbena officinalis*), all generally met with in the vicinity of habitations or monastic ruins. *Smyrniolum olusatrum*, certainly used in old times as a pot-herb, comes into the same category. Bound, in many instances, by their vows to live on vegetable diet, a garden was indispensable to their purpose, while the calls of the peasantry on their medical skill required the cultivation of such as would furnish them with decoctions and balms for the protean forms of disease, as then understood and encountered. But, independent of this, amusement was required to unbend the mind tired with the sameness of austerity; and nothing could surely be more innocent than the cultivation of that love for flowers which all mankind possess, bent as it was presumed to pious uses, by connecting the names of the Virgin and saints, and the recurrence of festivals, with the appearance of the varied blossoms of the year. In the old olatory gardens, were a host of disease-destroying plants, which as wound-worts, heal-alls, or loose-strifes, effected wonders in their day, and were *balms* for all possible ailments, though now abandoned and neglected. Even in later times, certain plants have obtained celebrity for some fancied power or property, and so been spread about. Such, according to WILLDENOW, has been the case with the common Thorn-Apple (*Datura Stramonium*), which now scattered throughout the greater part of Europe

as a noxious weed, was brought originally to us from the East Indies and Abyssinia, and so followed the steps of a set of quacks, who used its seeds as an emetic or cathartic.* Probably many plants have been accidentally carried about in this way, and assuredly others have been purposely planted.

So *Diplotaxis tenuifolia*, occurring on the walls of Tenby, in South Wales, and other old towns, may have accompanied the Flemmings, when they settled in this country, from the Continent, in the reigns of Henry I. and II. From abandoned and ruined gardens, numerous plants, once esteemed as simple, but efficient remedies for various disorders, or nurtured for some real or supposed virtue, have arisen, to spread about the vicinity, lingering like mementoes of departed joys, as if hoping they might yet be called upon to resume their former functions. Thus *Senecio squalidus* remained a great number of years on old walls, near Worcester cathedral, a former member probably of the convent garden, and yet existed in 1849. The same plant grows abundantly, on walls at Oxford, escaped from the physic garden there. *Atropa Belladonna* although now naturalized among the stony hollows of the Cotteswolds, in Gloucestershire, and in other neglected spots, is a lurid plant, certainly derived from the monasteries, and it now flourishes in such profusion, near Furness Abbey, Lancashire, that the "Vale of Nightshade" has been appropriately applied to the spot. *Aristolochia clematilis*, having a celebrity for female complaints, was cultivated in the gardens of nunneries, where, from its abiding roots, it is still to be met with, about

* WILLDENOW—*Principles of Botany*, 8vo. p. 390.

the ruins of such structures as Godstow nunnery, Oxfordshire, from whence I have a specimen. Such *historical* or *memorial plants* have a peculiar interest, and deserve to be noted, though there can be no necessity for insisting, as some botanists do, that they are "certainly wild,"—meaning thereby that they had an *ab origine* existence in our island. There can be no rational doubt that such flowers as *Impatiens fulva*, and the Martagon Lily, however *wild* they may now *appear to be*, or secluded the spots where they grow at present, were introduced from gardens. The Canadian shrub, *Xylosteum tataricum*, Pursh, so well known by its small pink flowers, as an adornment of plantations, now frequently, as I have observed, gets into hedges, and spreads about quite as wild as some other plants that are allowed to pass muster. Species from abroad often maintain themselves on ballast heaps for a time, as *Linaria supina*, found by Mr. KEYS, at Plymouth,* and so for the nonce, get reported as "true natives," until again degraded, by more accurate observation, or death, at the place of their appearance. But, not to multiply examples that come within the experience of every botanist, no one will dispute that *Dianthus plumarius*, and *D. caryophyllus*, now often beautifying the walls of castles, are garden derivatives; while the spread of the little Italian ivy-leaved toad-flax, (*Linaria Cymbalaria*,) throughout England, and even into remote places in Wales, is a matter of daily observation.

A remarkable circumstance in the distribution of plants, particularly interesting to the botanical ob-

* *Phytologist*, vol. ii. p. 39.

server, is the PRIVILEGED LOCALITIES certain rare species assume, most of which must be esteemed undoubtedly indigenous in such restricted bounds; and, puzzling as they are to account for, on mere geographical principles, it would seem as if nature had herself planted them, but circumstances had in some way precluded their extension. I subjoin the more remarkable of these stations, as not coming within an every-day look out, and it is moreover convenient to see them at a single glance.

Arabis hispida, on the rocks of *Clogwyn du yr Arddu*, Snowdon.

Arabis stricta, on St. Vincent's rocks, on the side of the Avon, below Bristol. Other rare plants occupy this picturesque ledge of "Bristol Limestone," which is situated on the *Gloucestershire* side of the river. The Leigh woods, and *carboniferous limestone*, abounding with *Pyrus Aria*, *Grammitis ceterach*, &c., are on the *southern* or Somersetshire bank of the river.

Draba aizoides, on the walls of Pennard Castle, Glamorganshire, and it is reported by Mr. DILLWYN, also on inaccessible *rocks*, near the Worm's Head. Found nowhere else in Britain.

Thlaspi alpestre, chiefly on the rocks about Matlock, Derbyshire.

Thlaspi perfoliatum, on the Oolite of the Cotteswold Hills, Gloucestershire, near Naunton Seven Springs.*

Helianthemum polifolium, on rocks at Babbicombe,

* See Professor BUCKMAN'S *Flora of Cheltenham*, an interesting record of the plants of the Cotteswolds, among which is the rare and beautiful *Melittis grandiflora* growing in a wood called Puckham Scrubbs.

near Torquay, and on Brean Down, a rocky peninsula of the Severn Sea, near Weston-super-mare, Somerset. *Carex humilis* occurs here as well as on St. Vincent's rocks.

Helianthemum Breweri, on Holyhead Mountain, Anglesea, and near Amlwch, in the same island.

Dianthus cæsius, the "Cheddar Pink," found only on the singular precipitous rocks of Cheddar, Somersetshire.

Cucubalus bacciferus, in the Isle of Dogs, opposite Greenwich. No other English locality is known. Discovered there by Mr. GEORGE LUXFORD, in 1837.

Alsine stricta, on Teesdale Moors, near Widdy-bank Fell, its only known locality in Britain, found there by Mr. J. BACKHOUSE, jun. and party, in 1844. *Teesdale*, and especially the portion of it comprehended by Widdy-bank Fell, Cauldron Snout, and Falcon Clints, is a district peculiarly rich in botanical rarities.* Cauldron Snout is a cataract on the river Tees, where the stream plunges in a broken fall of about 200ft. down a dark basaltic gorge. Over the Snout is a narrow bridge, connecting the counties of Durham and Westmoreland. Falcon Clints is a range of lofty basaltic crags, which commence here and extend along the river a mile and a half. The very local *Woodsia ilvensis* grows in the fissures of the basalt. In the tract called Widdy Bank various other rare plants are localized, as *Bartsia alpina*, *Gentiana verna*, *Cnicus heterophyllus*, *Sedum villosum*, *Tofieldia palustris*, *Saxifraga*

* See BACKHOUSE'S Botanical Ramble in Yorkshire, *Phytologist*, Sept., 1844.

aizoides, *Poa Parnellii*, *Kobresia caricina*, *Juncus triglumis*, *Carex capillaris*, &c. At the High Force, where the rocks are of basalt overlaying limestone, down which the river Tees pours its stream, in an almost unbroken fall of sixty-nine feet in height, into a dark basin, and runs along a deep ravine among lofty perpendicular rocks; other rarities enrich this most interesting botanical district. These are *Hieracium Lapeyrousii*, *rigidum*, and *Lawsoni*, *Crepis succisæfolia*, *Potentilla fruticosa*, *Arbutus Uva-ursi*, *Sesleria cærulea*, *Poa Parnellii*, and *Carex rigida*. Scarcely any tract in Britain can combine so many of the rarer plants as this does. *Saxifraga Hirculus* grows on Cotherstone Fells.

Impatiens Noli-me-tangere, Stock Gill, and Scandale Beck, Westmoreland.

Sedum album, on the syenitic rocks of the North Hill, Great Malvern, Worcestershire. Dubious if really wild in any other locality in Britain, and here only occupying the middle range of the rocks of the hill, 600 to 800ft. in height.

Trifolium strictum, on the Serpentine of the *Lizard district*, in Cornwall. The Rev. C. A. JOHNS, an acute and observant botanist, thus mentions the rare Clovers here met with.—“A sloping bank on the right hand of Caerthillian valley, about a hundred yards from the sea, produces, I should think, more botanical rarities than any other spot of equal dimensions in Great Britain. Here are crowded together in so small a space that I actually covered with my hat growing specimens of all together, *Lotus hispidus*, *Trifolium Bocconi*, *T. Molinerii*, and *T. strictum*. The first of these is far

from common; the others grow nowhere else in Great Britain. *T. Bocconi*, and *T. Molinerii* were first observed about ten years ago; the former may be distinguished by its terminal heads of flowers, which always grow in pairs; it occurs also on a hedge near Cadgwith, and on a rocky mound between that place and Poltesco. *T. Molinerii* occurs at intervals between this spot and Cadgwith flag-staff; it is easily detected by its large star-like heads of downy flowers, which, as the seeds begin to ripen, assume a remarkably whitish hue. *T. strictum* I had the good fortune to discover in July, 1847, here and near the Old Lizard Head. It is strongly marked by its erect habit, long serrated leaflets, and globular rigid heads of flowers. It was previously known as a native of Jersey, but had not been noticed in Great Britain. The fact that three species of Trefoil *peculiar to the district*, should have been discovered growing together, has been thought so singular, that some botanists have entertained doubts whether they are really indigenous. I myself see no reason to doubt that their first introduction to the Lizard district was coeval with that of the rest of the vegetation on the cliffs. It should be remembered that, as the Lizard is the most southerly point of England, and its climate uniformly mild, we have good grounds for expecting to find plants properly belonging to the warmer sea-coasts of Europe, and such is the case with these three trefoils;—they are all found on the coast of the Mediterranean.”* On the favoured serpentine of the Lizard, the Cornish Heath (*Erica*

* *A Week at the Lizard*, by the Rev. C. A. JOHNS.

vagans,) flourishes over continuous miles of ground, growing low and stunted when it encounters the sea-breeze, but in sheltered situations attaining a large size. It does not flower until August, and early in September its lovely snowy and pink blossoms cover acres upon acres of barren moor. Within this same formation and district other rare or peculiar plants appear, as *Corrigiola littoralis*, *Elatine hexandra*, *Herniaria glabra*, *Exacum filiforme*, and *Illecebrum verticillatum*. Kynance Cove is a deservedly celebrated botanical station, where, among other plants, may be noticed *Allium Schœnoprasmum*, *Genista pilosa*, and *Scilla verna*. Mr. JOHNS states that the asparagus (*A. officinalis*), grows wild, "in great abundance, in the clefts of the rocks, under the rill, on the island at Kynance, to which it gives name, and in a ravine a few hundred yards north-east of Cadwith Cove. It is, in all respects, like the Asparagus of our gardens, and at the last mentioned place is treated as a culinary vegetable. Though always remarkable for its elegant mode of growth, in autumn it is particularly ornamental, owing to the contrast to the vegetation around it, afforded by its brilliant yellow foliage and scarlet berries." Cornish Money Wort (*Sibthorpia Europæa*), a curious little plant, is also one of the Lizard rarities.

Spiræa salicifolia. In the vicinity of Bala, North Wales, on the banks of the river Trueryn, which falls into the Dee near that place, this shrub forms a pretty and characteristic vegetation. Except in the moist boggy parts of the principality, it is scarcely indigenous to Britain.

Potentilla rupestris, only found in Britain on the

middle part of Craig Brithen, a lofty trappoid hill in Montgomeryshire, on the borders of Shropshire, but in considerable plenty there. Great quantities of *Veronica spicata* and *hybrida* grow on the same mountain. Also the singular tall-stalked variety of Mouse-ear Hawkweed, termed *peleterianum*.

Cotoneaster vulgaris, on the ledges of some limestone rocks on the Great Orme's Head, Caernarvonshire, looking inland, above a farm-house, called Tan y Coed. This is about 600ft. high, and seems as if anciently it had been much frequented by birds.

Pyrus domestica, one tree only in a very decrepid state, in Wyre Forest, Worcestershire. Wyre, or Bewdley as it is now called, is the relic of a British aboriginal forest, and *Pyrola minor* as well as *Epipactis ensifolia* grow near the old Sorb-tree, which was first noticed in the time of RAY.

Bunium Bulbocastanum, confined entirely to the chalk marl of Hertfordshire, Bedfordshire, and Cambridge. Discovered by the Rev. W. H. COLEMAN, in 1835.

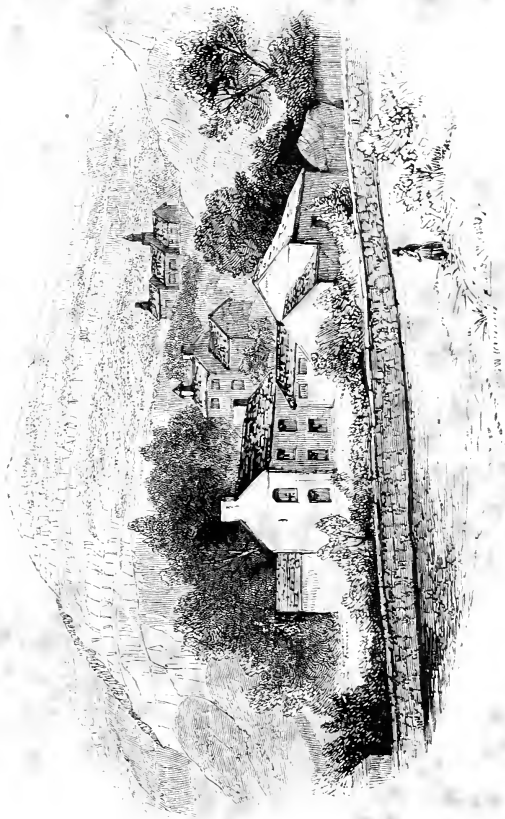
Libanotis montana, peculiar to the chalky pastures of Cambridgeshire.

Physospermum Cornubiense, only found in bushy fields about Bodmin, in Cornwall, and on the borders of Devonshire.

Cornus suecica, on the Cheviot hills, Northumberland.

Oniscus tuberosus, only observed in thickets on the Great Ridge, Wiltshire Downs.

Calamintha sylvatica, peculiar to woods in the Isle of Wight, where it was discovered by Dr. BROMFIELD, who has admirably elucidated the flora of that beautiful and favoured spot, in the pages of Mr. NEWMAN's monthly publication, *The Phytologist*.



LIMESTONE LEDGES OF THE GREAT ORME'S HEAD,
Llandudno, Caernarvonshire,
Habitat of the *Cotoneaster vulgaris*, *Silene nutans*, &c.



Buxus sempervirens, on Box Hill, Surrey, where this beautiful evergreen truly adorns the chalky heights. If indigenous any where in Britain it is here. Various *Orchidiæ* are found in the vicinity.

Teucrium Botrys also grows at Box Hill.

Scheuchzeria palustris, only in England, at Bomere Pool, near Shrewsbury, Shropshire; and Lakeby Car, near Boroughbridge, Yorkshire. The former is a beautiful little lake, with abundance of *Sphagnum*, amid which the *Scheuchzeria* grows.

Orchis hircina, only known in the vicinity of Dartford, in Kent, but not recently gathered. A correspondent of the *Phytologist* (Mr. W. PEETE) says, respecting its station here, that "in consequence of the rapacity of collectors, it is now nearly, if not entirely, eradicated. It was to be found to a certainty near Puddledock and Stanhill, in Wilmington parish, about twenty or thirty years ago, in hedgerows; also at Truling Down, in the road to Greenstreet Green." Here Mr. PEETE says he has gathered it, and considers it may still be met with. This statement was made in 1843. *O. fusca* is another beautiful Kentish plant, more easily found; and the Spider and Drone Orchises, *O. aranifera*, *O. fucifera*, and *O. arachnites*, are also natives of the chalky pastures of Kent, chiefly near Deal.

Cypripedium Calceolus, in Castle Eden Dene, Durham, almost the only place in England where the Lady's Slipper can now be found.

Allium Ampeloprasum, on the Steep Holmes Isle, in the Severn Estuary. Not to be found elsewhere in England. *Pæonia corallina* grows upon the same

picturesque rocky islet, but is every year becoming less abundant.

Anthericum serotinum. The Spiderwort is now I believe only to be found on the Glyder mountain, in Wales, on scarcely accessible rocks, at Twlldu, above Llyn Idwall. The direful chasm here formed by a mountain stream from Llyn-y-cwn, is commonly called "The Devil's Kitchen," and is the centre of the botanic garden of Snowdonia; I shall in due course mention it in detail.

Isolepis Holoschænus, on a wet part of the sandy expanse of Braunton Burrows, Devonshire. This is a remarkable locality, fronting the sea, with wild sand hills and marshy spots, spreading far around, well deserving a visit. *Teucrium Scordium* here grows, in immense profusion, in the wet hollows.

Doubtless other "privileged localities" will present themselves to the memory of the exploring botanist, and I could have increased the list, but I wished to note those that remain with their plants so fixedly, that they are likely to continue as above indicated for many years to come. To such hallowed spots it is the delight of the botanist to ramble, and the object he has in view gives an exhilarating impetus to his movements, which they only can understand who have sought plants themselves, or made one of a botanical party. The scenery and the thoughts called up, are not the less imbibed because plants are the objects in view. I once, in a ramble in Wales, accidentally got into company with a tourist quite unacquainted with botany, but, putting himself under my command, I led him into such queer places, and took him such a pilgrimage, that he soon entered into the spirit of a

heartly communion with nature, and said he should never forget that day.

The influences of altitude, exposure, aspect, shade, temperature, and moisture, in governing the distribution of plants, I shall fully enter upon *seriatim* in the following chapters, tracing the flowers as they appear in succession through the different months, and appropriating them to each, yet not neglecting their *combinations* on rock, rivulet, morass, wood, heath, sequestered lane, sunny bank, or sea-coast.

The variety in the localities affected by plants is a source of interminable enjoyment to the exploring botanist who rambles in search of them, and who is thus led to perpetually changing scenes of landscape beauty; and is not obliged, like the angler, to dodge about, or dose by the root of an old willow, for a dozen consecutive hours, and be at last obliged to confess, as a Waltonian once did to me, that he might just as well have been *lashing a bucket*! There is almost always some *new idea*, or the hope of some *new acquisition*, to tempt the fancy of the botanical Rambler. Instigated first by the love of novelty common to all mankind, he may “range fresh fields and pastures new,” or hurry to gather “new flowers,” with all the ardour of a neophyte. There is happiness even in *this* impression—for, as DRYDEN says,

“’Tis not for nothing that we life pursue,

It pays our hopes with something still that’s new.”

But the love of *knowledge* follows upon the *excitement of novelty*, and the looker-out returns home with an anxiety to understand what he has discovered, and to trace the chain of its affinities through all their divarications.

On the *vegetable changes*, by which plants are lost from their former localities, and the efforts constantly making by nature to colonize and renew, as well as other curious circumstances in the appearance of plants, and their wanderings about, I shall have occasion to revert hereafter.

The geographical distribution of British plants, though very interesting to the botanist, does not come within the scope of my present design; it is, of course, suggestive in its application to the floras of adjacent countries, and the original dispersion of plants. Those who wish to study this subject in detail can refer to the works of Mr. H. C. WATSON, who has written largely upon it.

WILD FLOWERS OF JANUARY.

CHAP. I.

THE PLEASURE AND ADVANTAGE OF LOOKING OUT—
FLOWERS IN THEIR RELATIONS TO THE HUMAN RACE
—FIRST ASPECT OF THE YEAR—EVERGREENS OF THE
SEASON—IVY AND HOLLY CONTRASTED—HOLY THORN IN
FLOWER—NATURAL HISTORY OF THE MISTLETOE—ITS
STATIONS UPON VARIOUS TREES—RARITY ON THE OAK.

“ Winter is here—all the flowers are dead,
No nosegay is gracing the room ;
But *coral* and *pearls* of rare lustre are spread
In the *Holly* and *Mistletoe* bloom.”

ELIZA COOK.

OBSERVATION is the parent of thought and simile, and without it the mind must remain ignorant of external objects. Hence to *look out for ourselves* is the only way to compare description with fact, to test the records of others, and to exercise our own powers of discrimination. Thus the eye not only learns to look on, and at, but *into* things, and interesting objects that, to an unpractised sight, would be unnoticed, or passed over, are revealed by that *euphrasy* with which constant attention clears the eye, as the juice of the eye-bright cleared the visual organ in olden times. The botanist is more especially incited to observe, for with untiring steps he must progress at every oppor-

tunity to gather the specimens his herbarium requires ; and, local as many plants are, the sight of a rare one only the more inspires him to gather it for himself, in its native place of growth. With every excursion additional knowledge is gained, and new stores are opened to the thoughtful observer, while the idea of

“ fresh fields and pastures new,”

is a constant stimulant to effort and research.

Nor are botanical facts, relative to the appearance and flowering of plants, and their peculiar beauties and localities, alone gathered and treasured up by the looker-out. Nature in her various aspects—the gloomy dingle—the rocky wild—the broken ravine—the expanded lake—the precipitous rock—the foaming waterfall—all these mantled in misty sublimity,—lovely in the mild tranquil morning, or gorgeous with the reflected light of sunset,—present a series of poetical pictures, whose transcript ever remains impressed upon the memory, to rise up and delight the fancy in after hours of solitary quietude, inciting and resuscitating thought. Thus the brooding mind stores up its gathered images and recalls them to view, as the teeming moisture in the spring and autumn, breathing upon dead sticks and fallen leaves, invests them with a fungous growth of beauty and rich colour almost marvellous to behold ;—with none more curious perhaps than the little sanguine *Sphæria* on blackened hawthorn stems.

The botanist in quest of plants sees many a wild that escapes even the lover of picturesque landscape scenery, he has always an object in his walks, and hence his rambles are not made in vain, at any period of the year, though the previous knowledge of what is

likely to be found is important, and to this, our labour of love, we now address ourselves.

GROVES, GARDENS, AND WILD FLOWERS—on these blissful concomitants of the country we purpose to dilate, through the varying phases of the changeful months. We shall trace the opening buds disclosed by each week in succession, whether on the mountain, the plain, or the surgy margin of ocean; we shall pierce the intricacies of the solemn twilight grove, whether decked with the ermine ruff of winter, or robed in the umbrageous multitude of leaves that sprightly summer presents to view; and we shall gaze upon the gems of the garden as in turn they glow before the solar rays, with all the ardour of poetical excitement. Thus the floral wreath we present, will, we trust, have charms for all gazers, since we propose to render it of general interest by the variety of its tints and shades; and if our course be sometimes *erratic*, we still hope to tempt the lovers of nature to join us in our pilgrimage, while our indications will, at all times be useful to the practical botanist, in whatever part of the year our pages may be consulted.

FLOWERS are almost the first objects that delight the infant sight, and permanently impress the memory—

“ We but begin to live from that fine point
Which Memory dwells on with the morning star,
The earliest note we heard the Cuckoo sing,
Or the *first Daisy that we ever pluck'd*;
When thoughts themselves were stars, and birds, and
flowers!”*

Aye from the toddling infant, who from his first sit-down among the grass, instinctively “ plucks the

* James Montgomery.

king-cup in the yellow mead," to the distinguished amateur, who fills his borders with incomparable tulips, or his conservatories and green-houses with choice exotics, we all admit the charm of flowers upon the fancy ; but in sequestered scenes of nature's own planting especially are they poetical and suggestive. The pages of almost every traveller exhibits some trait of this kind—a spontaneous tribute of floral admiration, though technical botany itself may not be understood or appreciated. VAILLANT, the French traveller, states that when wandering amidst the majestic solitudes of Southern Africa, he felt his heart exult within him at the sight of a magnificent lily, "the sole queen of the desert," which, growing on the brink of a river, filled the air around with a delicious fragrance ; and, as he poetically observes, "had been respected by all the animals of the district, and seemed defended by its beauty." Pictures of this kind, reminiscences of past communications with nature, and vegetable contemplations, are always soothing and delightful ; they charm at the time, and, when care slumbers, the vision smiles again radiant in the memory as an iris on a dark cloud.

I once, in the course of my rambles, met with a rustic, driving a cart, in a deep lane, in a secluded part of the country, who had several not very common wild flowers in his hand, which he seemed to regard with interest. "What, my friend, are *you* a botanist?" I asked. "Why," replied the man, "I do'n't know the curious names you gentlemen give to these things, but when I see them smiling under the hedges, they seem to speak to me ; and when I have plucked them, and look at them, they so sweeten my thoughts, that

I find them a pleasure to me all day as I go along." There nature spoke out in the voice of the humble rustic, and no one who has ever wandered with the zest of the naturalist, but admits the appeal, and assents to the idea that the floral colloquist has something to communicate to the mind worthy of treasuring up in the memory.

In every stage of life we have sympathies in connection with plants and flowers. Else how is it that even in the gloomiest alleys of our blackest towns we so often notice the broken tea-pot or battered tin can, where some hapless dingy plant that never has flowered, and never will flower, almost vainly strives to keep up a half life in the sooty mould that environs it. Ah! the poor inmates whom stern necessity has here ingulfed, thus solace themselves, and with their dusty stems and withering leaves try to recall to their minds the image of that country whose breathing sweets they can only glance at but not enjoy. It would be easy to depict floral images characteristic of every period of life—

“Some flowers o’ spring, that might
Become your time of day;”*

and our own poets would supply abundant exquisite illustrative passages—but to these preserved parterres I must refer the reader for special enjoyment in private contemplations. Suffice it to remark that we may trace flowers, as adorning every path and incident of human joy or woe, in all ages of the world—on the brow of the meek smiling blushing bride—in the path of the haughty conqueror—in the last sad grasp of the withered senior—blooming

* Shakspeare.

reflective on the deserted grave—and brought of old, as an emblematical offering to the altars of the gods.—

“ Floribus et vino Genium memorem brevis ævi.”*

So to the genius of the changing hours,
Mindful of *life's short date*, they offered wine and flowers.

But the more particular aspect of the *first month of the year* now claims to be examined and recorded. January, indeed, presents but little to attract the botanical observer, even if the weather permits an exploration, for deep snow, or constant rain, too often renders the country impenetrable, or if a hard frost binds the ponds and rivers, all vegetation quails before it.

“ No mark of vegetative life is seen,
No bird to bird repeats the tuneful call,”

says the poet, and yet a looker out may seize a bright moment, catch a profitable glimpse, or book a meditative idea, rising out of the denuded aspect of the landscape around. I find the following sketch, in one of my natural history journals, under January, which may illustrate this remark.

“ Took a walk along the Martley road, turning off at the field by Laughern brook side, beyond the mill, and down the stony lane, till, again making my way to the brook, I followed its sinuosities to the wood near Martley, which I entered, and wandered about some time. It was pleasing to pause under the leafless trees, looking up at the bright blue sky overhead, and watching the white clouds majestically sweep along, one after another, as if instinct with enterprize—the stainless swans of the ærial seas. All

* *Horace, Epist. lib. ii. l. 144.*

silent and secluded around, for the breeze was *above* the tree tops, only a solitary jay, flitting on the edge of the wood, screaming at my intrusion; but the eye, dropping its gaze below, was relieved, by the masses of cushion-like *verdant goldilocks moss*, beauteous amidst brown leaves and dead sticks that covered the soil, and reminded, by the grey-green lichens on the bark of the trees, that life was still there, though resting, for a season, on the breast of mother earth, but soon to spring up again, with renewed lustre."

Notwithstanding such breaks of beauty—caught, it might almost seem by stealth, like a coloured feather from a bird's wing—an uninitiated enquirer might be tempted to ask—What, by any possibility, can the botanical explorer observe, or remark upon, in the month of January? All the dull, gloomy, and horrific epithets language can furnish may be justifiably heaped upon this dreary portion of the year: to look *on* a cheerless, leafless, lifeless, damp, and foggy landscape—even from between one's drawing-room curtains—is bad enough; but to go *out* into it, is unendurable. Surely this look-out may be fairly postponed for a month or two, or, at all events, its glories may be summed up in this one expressive line of the poet of "The Seasons:"—

"How *dead* the Vegetable Kingdom lies."

Dead indeed! and, unless my eyes deceive me, *buried* too; for I see something uncommonly like snow upon the meadows, or, if it be not there now, I may safely prophecy (without a weather prophet's aid) that it *will* be there before the month has reached its termination. But surely something may even now be

looked at ; and most certainly, if *evergreens* are *ever* beautiful, it must beat this denuded season, when their aid in the shrubbery and the landscape is the only redeeming feature that presents itself. Hence the EVERGREENS now so prominently visible in gardens and plantations, have been thus allegorically distributed in the following lines of a poem consecrated to this early portion of the reign of two-faced Janus—

————— “ O’er the lover
 I’ll shake the *berry’d mistletoe*, that he
 May long remember Christmas : to the son
 Of boasting war, I’ll give the *holly-leaf*,
 And its *red berries* ; such he’ll find its meed,
 A little show of pomp, and many thorns.
 I’ll give the poet *ivy* ; for, like it,
 Around the ruin’d pile he ever clings,
 Adorns the loneliest spot with fancy’s charms,
 And props the tott’ring column in his rhymes.
 I’ll give the scholar *fir* ; for he must be
 Like it for ever green, erect, and firm,
 And with his needles of philosophy
 Contemn the snows of life. Here’s darkling *yew*,
 The mourner must have that, who seeks the shade,
 And hides his melancholy head in caves,
 Or by the sandy beach, utt’ring aloud
 His dull soliloquies, unseen, unknown.
 Here’s *laurel* for the school-boy.”*

How beautiful now the various firs, cypresses, and cedars ;—how imposing the lonely though sepulchral *yew* in its frondal magnificence ;—how reviving the laurel, laurustinus, bay, holly, ivy, and even mistletoe, high nestled up among the trees with its milk-white berries. The latter, to young and frolic notions not incompatible with the season, requires *experimental*

* Christmas ; a Masque for the Fire Side.

illustration, in the loving spirit of a first botanical lesson, which should be well *impressed* upon the recollection; and so will we again recur to it as a standing dish in the rustic hall, or dark timbered kitchen.

But let me say a word about IVY, for the present is the only fair chance to mention it—at least with full justice—when, as now, it is in its acmè of beauty and luxuriance. Notwithstanding its green aspect about trees and buildings at a season when every leaf is an acquisition, modern associations are not so brilliant with regard to ivy as ancient ones were, when, at the sight of its coronals, man, woman, and child grew mad with delight, and shouted “IO BACCHUS!”

“Oh! how could fancy crown with *thee*,
In ancient times the God of Wine,
And bid thee at the banquet be
Companion of the vine?”

Our ideas revert involuntary to the desolate ruin where the ivy encompasses the tempest-riven towers with its hundred Briarean arms, or waves darkly and mournfully about the broken tracery of the windows of many a crumbling abbey and priory. In such places as at Caerphilly and Pembroke Castles, in South Wales, the bole becomes by age of a tree-like size. A vast ivy-tree enshrouds a portion of the ruins of Maxstoke Priory, Warwickshire. Thus embowered, such abandoned ruins become

—“a place of ivy, darkly green,
Where laughter’s light is o’er.”

Good wine in the present day needs no ivy-bush to announce it as in days of yore, and the very hotels that formerly bore the sign, now retain the *bush* only,

and drop the neglected ivy: it “dies and makes *no sign*.” So that in good sooth ivy must be contented with the fate assigned to it in the old carol cited by BRAND, where it is put in contrast with the glorious old English Christmas-inspiring red-berried holly:—

“Holly and hys merry men they dansyn and they sung,
Eyn and hur Maydens they wepyn and they wring.”

But really, this is becoming a dissertation of so sombre a character, that we almost fancy ourselves giving out that celebrated couplet from STERNHOLD and HOPKINS—

“Like to an owl in *ivy-bush*,
That self same thing am I;”

we must, therefore, look out for a brighter object. It may not, however, be amiss to state, that ivy, if planted in pots, and properly watered, may in any balcony or parlour be taught to trail upon trelliswork in a very elegant and ornamental manner, with little trouble, and thus agreeably diversify a drawing-room with a feature of the picturesque.

Authors state ivy to be considered symbolical of friendship, from the *closeness of its adherence* to the tree on which it has once fixed itself; we, however, rather feel inclined to say to this too fraternal hugger—“Paws off!”—for though its “marriageable arms” are poetically assumed to be very agreeable, and ornamental to the trees embraced, yet, where *too thick*, they get the *upper hand* of their arboreal spouse, and, as they cannot be shaken off, he becomes almost smothered, little better than a peg whereon to hang the habiliments of the deceiver who has robbed the captive in her verdant bonds. It is said by herbalists that a decoction of the leaves or berries of the ivy

applied to the forehead gives ease in the head-ache, and hence the propriety of its appropriation to wreath the brows of bacchanals, who are charitably supposed to require such a bandage; but in modern practice the "*fronde coronat*" is superseded by a glass of soda-water.

Amid the dearth of other flowers, at a time when in days of yore we were wont to find ourselves

"In thrilling regions of thick-ribbed ice,,"

the history of a stranger plant, now green and conspicuous among the branches of the denuded trees. offers itself to our notice not unappropriately.

At this season of the year perhaps a more interesting or exciting object can scarcely come under the sphere of our observation, than the long familiar *Mistletoe*. It is one of those plants of general interest that are alike noticed by the clown and the philosopher; and attracts the attention of the meditative man of science in the open fields of observation, as well as the unscientific votaries of fun and frolic, that in these bronzen utilitarian days still dot the scene here and there, as a counterpoise to their graver and more studious brethren. I shall, therefore, in the brief sketch I am about to give of the plant, admit a sportive vein that few other subjects would allow in philosophical discussion, remembering that mirth and joy have ever nestled among the white berries of our festive plant; for as Walter Scott says—

"Forth to the woods did merry men go
To gather in the Mistletoe."

It seems, however, remarkable, that while *within* doors this mystic plant has ever been connected with mirthful ideas, that poets generally have regarded

it distastefully. SHAKSPEARE has branded it as "baleful," and DRYDEN thus associates it with melancholy abstraction.—

"I lean my head upon the mossy bark,
And look just of a piece as I grew from it ;
My uncomb'd locks, *matted like Mistletoe*,
Hang o'er my hoary face."

The decorative effect of our *domestic* hearths* garlanded with holly, ivy, and mistletoe, during the festival of Christmas, cannot fail to be exciting, derived as the custom is from time-honoured antiquity, and recalling cherished, though perhaps forgotten, feelings of holidays and happiness. The original idea appears to have been to decorate houses and temples at the winter season with *every kind of evergreen*, and mistletoe among the rest ; that the sylvan spirits, supposed to be devoted to the woods, should be tempted to reside for a period in the abodes of men, and so protect them from evil. Why mistletoe became so particularly regarded, appears to have arisen from a superstition extending back as far as druidical times, when the young bride wore a branch of mistletoe suspended from her neck, which was supposed (as it was considered a remedy against barrenness,†) to ensure an offspring, numerous as the spotless berries produced by the plant itself. So that formerly it seems to have been the exact converse of the dreaded *willow* ; for

* It must be remembered that while our *houses* may be garlanded with *anything green*, the Mistletoe is properly excluded from *sacred* adornment. Purity of thought requires this in a structure dedicated to divine worship. The holly, bay, laurustinus, and ivy, have no associations incompatible with prayerful thoughts ; but the Mistletoe has other remembrances, and has always been considered a profane plant, from having been dedicated to the Scandinavian Venus, and so wrapt up in mythological fable.

† Matth. Comm. in Dioscorides.

while those that had *lost* their loves were conducted to that hopeless barren tree, or at least recommended to sojourn beneath its shade; those damsels who were not in such an unfortunate predicament, were either merrily or stratagetically escorted to the Mistletoe, whose berries being pure white, of course could not fail to intimate the bridal wreath, and white satin ribband.

Archdeacon NARES, who has written very learnedly on this subject, and seems to be a great friend to the mystic rites of the Mistletoe, deprecates any unseasonable resistance on the part of ladies taken to or caught under the sacred plant; as he states that a non-performance of the usual ceremonial brings in its train all the evils of old-maidenism. It appears that the *berries* of the plant alone constituted its privilege; one was to be plucked at every salute, and various authorities insist that when the *last* berry is plucked from the bush, its potential and venerated character ceases.—

“ One single berry yet remains,
Untouch'd by rude and vulgar swains ;
By all unpluck'd, it seems to say
Whate'er has pass'd is Christmas play ;
But now, ere comes the vernal breeze,
The *last* chance fortune offers—seize !”

The most remarkable circumstance, however, in the history of the Mistletoe, is its mode of growth. It is invariably found flourishing upon and imbibing its support from the juices of some tree; it has never been met with attached to earth, nor can any treatment induce it to grow there. It is, therefore, termed by analogy a parasite; but a vegetable parasite is

somewhat different from a human one. Dr. JOHNSON defines a parasite to be "one that frequents rich men's tables, and earns his welcome by flattery;" and SHAKSPEARE denominates parasites as

"Most smiling smooth *detested* parasites ;
 Courteous destroyers, *affable* wolves, *meek* bears."

But our vegetable parasites, when they have once taken up their post, have no need to be "*affable* wolves," as they cannot be got rid of by any process ; but rather tyrants than parasites, prey upon the tree they have taken possession of, and retain their old till death. *Epiphytes* are very common among vegetables, the greater number of the *Lichen* tribe being so, as well as many of the *fungi* ; but it is rather uncommon to find a true parasite, the epiphytes only living upon other plants as a nidus, and not deriving subsistence from them, as is the case with the Mistletoe.

Some have considered the ivy to be a parasite, but in fact it takes a tree as a fulcrum or prop only, and merely exemplifies the conduct of those good-natured friends who will kill you with their officiousness, sooner than deprive themselves of the pleasure of your company. The *Orobanchæ* and the *Lathræa squamaria* are parasitical upon roots, while the *Listera nidus-avis* and *Monotropa hypopitys*, probably partially parasitical, or apparently in connection with diseased growth, yet may chiefly shelter themselves among the roots of trees as a secure asylum, their very nature demanding shade and obscurity. It is different with the Mistletoe, and apparently also with a little local phenogamous plant, called Dodder (*Cuscuta*), which are, perhaps, the only true stem-parasites among

flowering plants known in Britain. The *Boleti*, *Polypori*, and various other *fungi*, are doubtless really parasitical, not only living upon, but often destroying the miserable victims exposed to their invasion.

The mistletoe (*viscum album*, Linn.), is a diœcious plant, of which the females seem to be by far the most numerous, producing from their tetrandrous corolla and inferior ovary, a white globular viscid berry of one cell, containing one seed. The embryo is dicotyledonous, but the coriaceous leaves with parallel veins, have certainly a very peculiar aspect, and both sides have the same uniform yellowish green colour, which distinguishes the smooth, jointed, round stem. When the embryo germinates, it generally produces two or more radicles, whose shape has been compared to that of a French horn, which curiously enough do not progress downwards, as is common to the generality of plants, but, contrary to the law of gravitation, often push directly upwards, as is the case when one of the glutinous seeds is deposited on the under side of a branch; and in other cases the direction of the radicle is always perpendicular to the axis of the branch. The provision of nature for the increase and continuation of her offspring, is shown as much in the mistletoe as in any other plant. Although its nature is diœcious, and consequently a plant standing alone might not produce any fruit, it is found that a single seed often nourishes two embryoes, a brother and sister; and the gluten which envelopes the seed furnishes nutriment to the young plants till they have penetrated with their sucker-like radicles, which are devoid of fibrils, into the sap-wood of the tree. As the mistletoe derives no nutriment

from the earth, and has, therefore, no necessity to fall to the ground, its dissemination is wisely entrusted to birds, who are tempted to feed on its white berries when other supplies fail, and in cleansing their bills upon the rind of various trees frequented by them, are sure to leave behind a few of the clammy seeds to perpetuate the continuance of the parasite. It is not improbable also that the seeds pass through the bodies of birds uninjured, as stated by old writers, and even benefited by the forward tendency thus given them to earlier germination.

Birds of the thrush family chiefly delight in the mistletoe berries, especially the *fieldfares* and *red-wings*; and as these generally fly in flocks, keeping in one line of direction, it is not unusual to see a corresponding line of mistletoe bushes ranging across the country for a long distance. I have followed such a line till its continuity was broken by a river, when I have almost invariably found that its course was again continued from the nearest tree that presented itself on the opposite side of the water. I remember once observing a long line of hedge overtopped by straggling hawthorns and scrubby maples, every one of both of which were hung with mistletoe; but curiously enough an *oak* in the centre of the hedge was passed over, though the parasite was luxuriant on a hawthorn close *under* the umbrage of the oak.* The large rotund bushy mass that the mistletoe forms is often very striking, especially if it

* Perhaps where the mistletoe is scarce, or not at all met with in apple orchards, as stated by Dr. DAVIES, of Presteign, of those of Radnorshire, the localities may not be frequented by the winter migratory birds belonging to the thrush family. See *Analyst*, vol. i. where there are remarks on the mistletoe, by Drs. DAVIES and STREETEN.

be pendent; and it is remarkable that there is no disposition in the plant to destroy the tree where it grows, as, except at the point from which it develops itself, the radicles penetrate no farther than the sapwood. The mistletoe, therefore, seems only to act the part of a pseudo-bud upon the tree, no doubt extracting from it nourishment that would have developed a large branch, but not doing material mischief, except existing in *excess*, or so far surrounding any branch as to cut off the supplies of nutriment from proceeding farther, except into its own reservoirs. It seems always full of moisture, and being, therefore, extremely brittle, it is corded tightly together by lateral ligatures, that, extending along each dichotomization beneath the epidermis, preserve it from the effects of common accidents; while the base of each branch is firmly socketed into a swelling nob that surmounts the inferior one—thus a regular dichotomous series of branches is formed, all firmly articulated in an ossiform manner into each other, and yet each branch may be considered an independent plant, with leaves, flowers, and fruit.

It seems curious that though the mistletoe flowers earlier in the year than the apple trees on which it flourishes, yet it does not ripen its small white berries till December, long after most others, and thus is called by Virgil "*frigore viscum*,"* — the wintry mistletoe. This may not improbably arise from its being unable to steal sufficient nutriment from its nurse till the latter has got rid of her own legitimate offspring, and lost her foliage too. But at any rate this fact is opposed to the commonly received notion

* *Virg. Æn.* lib. vi. 205.

of the descent of the sap in trees before winter, and its dormant state in that season; for, if it were so, how could the parasitical mistletoe, which derives its subsistence entirely from the imbibition of the juices of the tree on which it is found, flourish as it does in winter, if in reality there were no supplies of sap for it to have access to; for it very soon dies when separated from the foster-parent on which it feeds. It certainly contrives to establish a fund of its own in the hard yet juicy tubercles at its exsertion in the stem; but still its root, which is analagous to a sucker, and devoid of obvious radicle fibrils, plunged in the sap-wood of the tree, seems always employed in pumping up a supply of provision for its many-headed branches, equally in winter as in summer.*

It is familiar to almost every educated person that the mistletoe was honoured by the Druids of Gaul and Britain as an heaven-descended plant, which they denominated *pren-awyr*, the celestial, or tree of the firmament; and also *oll-yach*, *all-heal*,† and distributed at certain times with remarkable solemnities as a precious gift. “When the end of the year approached, the Druids marched with great solemnity to gather the mistletoe, in order to present it to God, inviting all the world to assist at the ceremony in

* I made the experiment not long since of re-committing to the ground the large arms of an apple-tree, on which was a mistletoe-bush, but the plant soon died after the amputation had taken place, quickly withering in its unnatural position, and proving that it depended for support from the circulation of sap from the main bole of the tree from which it was taken.

† PLINY, lib. xvi. cap. 44, says “*omnia-sanaratem* appellantes suo vocabulo,” &c., and TOLAND, in his *History of the Druids*, says that the identical word “in the Armoricon dialect, is *oll-yach*, in the Welsh *oll-hiach*, and in the Irish *uile-iceach*.”

these words :—*The new year is at hand, gather the mistletoe !* The sacrifices being ready, the priest ascended the oak, and with a golden hook cut the mistletoe, which was received in a white garment spread for that purpose. Two white bulls that had never been yoked were then brought forth and offered to the Deity, with prayers that he would prosper those to whom he had given so precious a boon.”*

It was, however, only the mistletoe of the oak that received this idolatrous veneration ; and hence, as in the present day, the mistletoe appears most commonly upon the apple-tree, and hardly ever upon the oak, a suspicion has arisen that there must be some mistake in the matter. A gentleman, who has published several ingenious theories, once proposed the hypothesis to me that in the lapse of years a misnomer had arisen, and that in fact *our* apple-tree was the *oak of the Druids !* I believe he was at last fairly laughed out of the position he had proposed to take up ; but if he had not been, the matter is put to rest by DAVIES, who, in the “*Celtic Researches*,” says that the apple-tree was considered by the Druids the *next* sacred tree to the oak, and that orchards of it were planted by them in the vicinity of their groves of oak. This by-the-bye was a sly trick on their parts, as they thus, no doubt, made a nursery for the mistletoes among the apple-trees, and thus offered a very fair chance of getting it easily transplanted to their sacred oaks. Professor BURNET says, that the curious basket of garlands with which “*Jack-in-the-Green*” is oc-

* JONES’S *Bardic Relics*. The new year of the Druids did not, however, correspond with ours. TOLAND says that the druidical new year’s day was the 10th of March, “which was the day of seeking, cutting, and consecrating the wonder-working all-heal.”—TOLAND, *Hist. Druids*, 108.

asionally even now invested on May-Day, is a relic of a similar garb assumed by the druidical assistants, when about to hunt for the mistletoe, which, when they had found, they danced round the oak, to the tune of "*Hey derry down, down down derry,*" which literally signified—*In a circle move we round the oak*. Whether the Druids really capered about to the tune of "*Derry down,*" as stated by the learned Professor,* I shall leave to Cambro-Britons and bards interested in the matter to decide at their leisure. There are certainly oak woods in Monmouthshire still called "*the Derry;*" and OVID, at any rate, affirms that the Druids used to *sing* to the mistletoe,—

" Ad viscum Druidæ cantare solebant."

FOSBROOKE thus details the ceremony, perhaps, however, amplifying from PLINY, who merely states that a priest, clothed in a white robe, ascended the tree and cut off the mistletoe with a golden sickle.† "The bards walked first, singing canticles and hymns; afterwards came a herald, the caduceus in his hand, followed by three Druids, who walked in front, carrying the things necessary for the sacrifice; afterwards appeared the prince of the Druids, accompanied by all the people. He mounted upon the oak and cut the mistletoe with a golden sickle. The other Druids received it with respect, and upon the first day of the year distributed it to the people as a holy thing."‡ The Druids, it is affirmed, had an extraordinary veneration for the number three, and as the berries of the

* Amænitas Querniæ.

† Sacerdos, canaida veste cultus, arborem scandit: falce aurea demetit.—
PLIN. *Hist. Nat. Lib.* xvi. cap. 44.

‡ FOSBROOKE'S *Ency. of Antiquities*, 4to, vol. ii. p. 745.

mistletoe may be often found clustered in threes, this may probably have enhanced their esteem for the "celestial plant."

Having been myself a frequent mistletoe hunter, though certainly not robed in the mystic habiliments of "Jack-in-the-green," or as a white-robed Arch-Druid, I shall now just state the various trees that I have actually seen studded with the hallowed mirth-inspiring mistletoe.

ON THE APPLE—extremely abundant; and why it is so I think arises from the disposition in that tree to form knots, a disease produced from an excess of sap, or an inertness in it which the mistletoe offers a relief to somewhat analagous to cupping—the redundant juices being carried off as nutriment to the parasite.

..... PEAR—rare.

..... LIME—rather common, and often plentiful, investing the trees to the summit.

..... HAWTHORN — frequent, and in extending lines.

..... MAPLE—not unfrequent.

..... SYCAMORE — at Lansdown, Cheltenham, pointed out to me by my friend Professor BUCKMAN.

..... MOUNTAIN ASH—very uncommon. In the vicinity of Ledbury, and about the Malvern hills.

..... WHITE BEAM (*Pyrus Aria*), unfrequent, but on the rocks near the western portal of

Chepstow Castle, is a fine tree with much Mistletoe upon it.

..... HAZLE—of very rare occurrence, and esteemed by the Druids next to that on the Oak.

..... ELM—in one locality only, near Bushley Park Farm, in the vicinity of Tewkesbury.

..... ROBINIA-PSEUD-ACACIA — local, though in shrubberies in Worcestershire I have several times seen it there, as at Thorngrove and Stanford.

..... WILLOW—occasionally. In a field north of Great Malvern.

..... ASH—sometimes very profusely.

..... MEDLAR—met with once only, at Forthampton, Gloucestershire.

..... ASPEN—very rarely. An instance occurs on the borders of Longdon Marsh, Worcestershire.

..... BLACK POPLAR—so excessively abundant in almost all recent plantations in Worcestershire, as literally to bend some of the trees towards the ground; yet on old poplars I have never seen a single plant.

A few other trees have been mentioned on which I have not seen the mistletoe, and I therefore pass on to notice its occurrence on the *oak*, which is now undoubtedly a very great rarity; and I consider this to arise partly from the Romans having destroyed all the druidical mistletoe, for it is most remarkable that though so many old oaks are recorded as existing in

this country, perhaps upwards of 1000 years old, not one has mistletoe upon them. Even the Rev. W. Davies, in his *Flora of Anglesea*, once the head quarters of druidism, is unable to mention a single locality where the mistletoe now grows there.* Some years ago I had a long ramble in Surrey after the Mistletoe of the Oak. Being in London, an enthusiastic friend came to me one day, and said, exultingly, that he had just heard that the mistletoe had been seen on an oak at Bookham Common, and that in the woods of Surrey it was not uncommon. The next morning we started over bush, brake, and scaur;—but deluged with rain, after many efforts, drew only a blank day: and we learned afterwards to our great mortification, that my friend's informant had *meant* ivy, when he *said* mistletoe!

I have several times *heard* of mistletoe being taken from the oak both in Kent and Monmouthshire, but was never fortunate enough to behold it myself till in 1837 I saw an oak perhaps about seventy or eighty years old, with four fine bushes of mistletoe upon it, growing in the park of Earl Somers, at Eastnor, near Ledbury, Herefordshire. The tree stands a short distance from the path near the second Lodge gate, by the side of an old British road passing along the western base of the Malvern Hills, called "the Ridgeway;"—but on the strictest enquiry and examination, among natural oak woods there of more than three

* The island of Anglesea is taken to be one of their (the Druids) chiefest seats in Britain, because it was a solitary island full of wood, and not inhabited of any but themselves; and then the isle of *Mona*, which is called Anglesea, was called *yr Inys Dwyll*, that is the Dark Island. And after that the *Druidion* were supprest, the huge groves which they favoured and kept a-foot, were rooted up, and that ground tilled. — TOLAND, *Hist. Druids*, 222.

hundred acres in extent, this was the only oak with mistletoe upon it, and is the only one I have ever seen. Mr. J. F. Dovaston has, however, mentioned in *Lou-don's Magazine of Natural History* (vol. 5, p. 203), that he once saw the mistletoe growing well upon the oak, "and what is more singular, hanging almost over a very grand druidical cromlech," in the Marquis of Anglesea's Park at Plas Newydd, in the island of Anglesea. My friend, Professor BUCKMAN, of the Cirencester Agricultural College, has also informed me of an oak with mistletoe upon it, which he has himself seen at Frampton-on-Severn, Gloucestershire, within half a mile of the river. The tree he considers to be more than a century old, and the branch on which the mistletoe grew about fifty years old. Several oak trees here occur in the hedgerows of the meadows (1849).

The mistletoe is rather a local plant, though often occurring where it does grow, in immense quantities, as in the orchards of Herefordshire, Worcestershire, and Gloucestershire. It is rare in Wales, being quite unknown in some districts, becomes still rarer in the north, and is only found in one spot in Scotland. On the continent it is as uncommon upon the oak as with us; and De Candolle, from having never seen it there, was induced to think that the *Loranthus Europæus* was the real druidical plant, which is an untenable opinion—the *Loranthus*, though common on the continent, having never been seen wild in Britain in the present day.

No author that I have met with, gives any satisfactory solution as to how the term *mistletoe* has arisen, though German and Danish have been brought forward

for the purpose.* But I think I can give the etymology without going so far. Now there is an obsolete old English word called *mistion*, which is employed even in the writings of BOYLE; and this is defined in Dr. JOHNSON's original folio edition of his Dictionary, as "*the state of being mingled.*" Now this is truly the condition of our plant, which is *intermingled* with the foliage of various trees, and mixes up their juices with its own; and is now indeed in rural places still simply called *mistle*. If to this we add the old English *tod* or *toe*, signifying *bush*, we have at once the derivation—meaning the *mingled* or *mixed up* bush, confounded amidst and growing among leaves dissimilar to its own.

Anciently, on traditional faith, the mistletoe was considered to be a remedy for ALL diseases. The older medical writers, however, regarded it as ministering chiefly to *fertility* and parturition; thus, in fact, continuing in part the old superstition; and it is also said to have been worn as an amulet against poisons. RAY mentions it as a specific in epilepsy,† and as useful in apoplexy and giddiness; and Sir JOHN COLBATCH published a "Dissertation concerning the Mistletoe, a most wonderful specifick remedy for the cure of convulsive distempers." This brochure of Sir JOHN's seems to have been almost the last serious effort of consequence made in behalf of the medical virtues of our mystic plant, at least in this country; and as it is admitted by all parties that the mistletoe employed *must* be the *viscus quernus*, while it seems reasonable to suppose that if the plant had any powers, the place

* See WITHERING'S *Bot. Arr. in loc.*, and LOUDON'S elaborate *Arboretum Britannicum*.

† *Raii Syn.* 464.

of its growth would be of little consequence, incredulity has taken possession of the minds of the great majority of physicians on the subject; and Sir JAMES SMITH rather sarcastically intimates that “a plant of *viscum* gathered from an oak is preferred by those who *rely on virtues*, which perhaps never existed in any mistletoe whatever.”* At all events, as stated by Dr. WOODVILLE in the Medical Botany, “whatever may be yet argued in its favour, the colleges of London and Edinburgh have, perhaps not without reason, expunged it from their catalogues of the *materia medica*.”

The mistletoe, seems still, however, to maintain a precarious place in rustic empirical practice. I once asked a farmer who lived in the neighbourhood of my residence, what he knew on the subject?—and he said, that the mistletoe of the oak, when it could be met with, was a capital thing for a *sick cow*!—but especially after calving.—Shades of the Druids! that “all-heal,” once gathered by a white-robed Arch-Druid, with a golden hook, and received upon a stainless cloth, as the mystic gift of heaven—shorn of all its glories, and divested of all its sanatory powers as respects the human race, now only figures in the traditions of rural practitioners as an aperient for an ailing cow! It is probable that an elastic gum might be prepared from the mistletoe somewhat similar to Indian rubber, for its sap is viscid as well as the berries, which were formerly used to make bird-lime, whence the latin name *viscum*.

I shall now close this account which I have treated in the diversified manner suitable to the subject, with

* *English Flora*, vol. iv. p. 237.

the following lines addressed to that identical mistle-toe-adorned oak, which I before mentioned as having observed in Eastnor Park in 1837, and where I am happy to say it still exists, and will I hope long remain for the admiration of the botanist and lover of sylvan scenery.

TO AN OAK WITH MISTLETOE GROWING ON IT.*

Hail, King of the Forest ! at last I behold
The mystical plant on thy branches unroll'd ;
It mounts to the summit, the leaves flagging down,
And thou standest a seer with thy magical crown.

But tell me, what hand, in the silence of night,
Array'd thy tall stem for the mystical rite ;
And how long, a meet subject for legend or story,
King of all thy compeers, thou hast stood in thy glory ?

'Midst the wreck of oblivion, a seer of the past,
Thou wavest in vain the proud wreath to the blast ;
Though the hills frown around thee as ever they frown'd,
No worshipper now for thy plant can be found.

Too late thou uprearest its " all-healing " powers,
For no Druids now bend o'er the dark Vervain flowers ;
No priestly array shall thy honours proclaim,
No chieftains surround thee with joyous acclaim.

* In the summer of 1840 I had again the felicity of looking up with Druidical feelings at this phytological curiosity, in company with a fellow wanderer of " auld lang syne," enthusiastic on such subjects as myself. A relic must needs be taken by him of the " golden branch ;" but as we were deficient of VIRGIL's falcion, and the " aureus ramus " flamed far up in the tree, we were compelled, rather ingloriously, to attain our object with turfy and cloddy missiles ; and in the encounter, accident, or the wounded Dryad of the tree, *stove in the crown of my friend's hat* with a recoiling clod ! Even botanical rambles have their exciting or even jocular incidents.

A blaze of proud honour might once have been thine—
Arch-Druids proclaiming thy nurseling divine,
Advancing their celts to the God-belov'd tree,
Proclaiming thy lineage, and honouring thee.

And now thou art nothing!—the clouds from the hill
Roll o'er thee and leave thee regardlessly still ;
And the deep mound above thee* no longer displays
To the blue-painted Briton the beacon's red blaze.

Remembrance may hallow the thought of thy pride,
And a dream of the past round thy branches may glide,
As the armour hung up in the dusty old hall,
A thought of the tumults of old may recall.

But a still deeper feeling arises from thee,
As I gaze, forest king, on thy charm-cover'd tree ;
If Caractacus's offspring now linger'd before
Thy trunk, upward gazing, I could not feel more !

His glories are past !—the same fatal decree
Leaves now undistinguish'd thy once divine tree :
A spirit hurries o'er us—and ancestry yields
To the blast that must scatter its crests and its shields !

What boots it the name that our ancestor bore ?
His spirit alone gain'd the wreath that he tore ;
And all bye-gone honours with time cease to be ;—
As futile as Mistletoe on the Oak tree !

* The fortress on the Herefordshire Beacon, Malvern Hills, which is supposed by the late Dr. CARD, Vicar of Great Malvern, in a learned treatise on this camp hill, to have been once occupied by Caractacus.

WILD FLOWERS OF JANUARY.

(CONTINUED.)

CHAP. II.

SNOWING-TIME.—TREES UPSET BY THE GALES.—LOCALITIES OF REMARKABLE YEW-TREES.—YEW IN THE OAK.—GROUNDSEL, DEAD-NETTLE, &c.—STOCKING-GORSE.—ASPECT OF NATURE.

“ When winter winds are piercing chill,
And through the hawthorn blows the gale,
With solemn feet I tread the hill,
That overbrows the lonely vale.

For still wild music is abroad,
Pale desert woods, within your crowd ;
And gathering winds in hoarse accord,
Amid the vocal reeds pipe loud.

Chill airs and wintry winds ! my ear
Has grown familiar with your song ;
I hear it in the opening year,—
I listen, and it cheers me long ”

H. W. LONGFELLOW.

CHRISTMAS sports and Christmas holidays, like all other pleasant things, glide swift away, and the holly and mistletoe begin to look dingy, among the huge dark beams of the old farm-house kitchen. Even the botanist almost fears to look out upon the frosty lawn and withered garden, but when dawn slowly stalks upon the wintry scene, feels inclined between

warm sheets to hug himself in fancied security, and, as he hears the stormy blast without, and just catches a shivering glimpse of the frosty finger-marks of stern Winter upon the window-panes, contents himself with the idea that there is nothing worthy of inspection out of doors. Yet Nature has something to exhibit even now, and above or under the frosty chrySTALLIZATION of the earth, some vegetative action is progressing even at this dull period, called in the "*Calendarium Naturale*," NIVALIS, or the "SNOWING-TIME," when, says FORSTER, "the weather is on an average of years *cold*, and the snow often *falling or lying on the ground*." No doubt about it, and if not cold from keen frost or pityless snow, blustering winds will probably sweep along, and pour their wild music through the woods.

Of late years fearful gales have occurred in January, overturning multitudes of trees, and sadly upsetting the calculations of the farmer as to the drink-offerings he expected from the coming season, by the destruction of sundry apple and pear trees in his homestead. Almost every orchard shows two or three trees which some former gale has thrown *down upon their knees*, and they invariably point eastward, thus showing that the gale has blown from the opposite quarter. It is remarkable that when a fruit tree has been thus placed apparently *hors de combat*, if it survives the shock, it becomes more luxuriant and flourishing, and is more stable for the future than those of its brethren that have retained their erect position. Apple and pear-trees often revive after being blown down, but not so the rigid church-yard Yew, which once fallen, can rise no more. There it is, laid prone in the dust by the midnight hurricane, after a warfare with the

tempests of more than a thousand years. Ah! it will be missed by many who have sat within its solemn shadow while the bells have chimed their "church-going" cadence on the sabbath morning, ere the parish priest has presented himself to view; or from a distance been reminded by its solemn plumes of once-loved friends resting in abandonment within its dark dominion. In a wild state it is generally found growing solitary, although a diœcious tree, and in winter and early spring its funereal boughs appear in moody state very conspicuous amidst its deciduous brethren in the forest. Sometimes the Yew is met with in greater quantity than usual, as in the wood on the basaltic hill of Areley, Staffordshire, where its sombre branches overshadow a bubbling brook in many places with a strangely gloomy effect. I also remember to have seen many old grotesque individuals in the woods that mantle about the base of the Wrekin, under one of which I once spent a sadly meditative day—and yet in retrospection that day under the yew, tearful as it then was, now seems full of delicious recollections. Forgetful of the feelings of blighted hope that then enthralled me, I now only seem to see the bright May landscape that gleamed in its loveliness before me, the distant Berwyn mountains above which many mottled clouds curled in a sky of clearest blue, and the fore-shortened Wrekin with its rocky crown seen above its green shoulders, boldly rising before me, while insect murmurs and the sounds of spring wandered with soothing influence about my sylvan cell. Many of the Welch and Monmouthshire church-yards are black with a multiplicity of yew-trees, for instance that of Mahmilade, between Abergavenny and Ponty-

pool, which has twelve or thirteen, several most luxuriantly cinctured with ivy, and one whose monstrous bole is thirty feet seven inches in circumference. The Llanfoist Yew, in the same county, is a noble tree, and in the church-yard of Mallwyd, near Dinas Mowddu, Merionethshire, are several remarkable time-honoured individuals, with excessively distended branches, spreading forty feet from the bole on every side, in singularly gloomy grandeur. One of the islands in the lake of Loch Lomond is stated to bear a wood of several thousand Yews, a circumstance perhaps unparalleled in Europe. A singular aspect is also presented in the church-yard of Painswick, Gloucestershire, from the great number of Yew-trees growing there, though of small size.

The Yew occasionally presents itself in very curious positions, from its berries having been carried off and dropt or hidden by birds. I have more than once seen it as an epiphyte upon the willow, and one of considerable bulk was a few years since growing *within* an oak, near Ribbesford, Worcestershire, and, from its size and the wrenching power it had exerted upon the broken trunk of its sustainer, had evidently grown there for a period exceeding a century. The intertwining of the contrasting foliage of the two trees had a most remarkable effect. The Ordnance Surveyors have even recorded the circumstance, and "the Yew-in-the-Oak," appears marked in their maps; unfortunately a violent storm in 1846 upset the oak.

But we have been blown into a digression by the force of the wind, and must resume the point in hand. *Four* wild flowers at least may always be found in

bloom at this season of the year. The first is the Groundsel:

“ Though storms may rage and skies may lower,
We are sure to see the Groundsel in flower.”

The flower of the Groundsel (*Senecio vulgaris*), like all those of the Linnæan class *Syngenesia* to which it belongs, consists in fact of an assemblage of small florets harmoniously enclosed within a common envelope botanically named a *receptacle*. This may be seen very beautifully with a common lens before the blossom is fully developed, for when it is, all that in fact meets the eye is the assemblage of yellow bifid stigmas that are uplifted above the quinquifid florets and their five stamens. At the base of each floret is a germen, which, after the stamens and pistils have faded, becomes a *pericarp* or seed-vessel, surrounded with a downy fringe or *pappus*, ready to waft the seeds far away on airy wing, which is finally done, and the withered base of the reflex receptacle perforated with the holes which received and held the bases of the pericarp, then puts on an appearance very similar to the top of a pepper-box. The grey aspect of the metamorphosed flowers when arrayed with their down-invested seeds has suggested the name of *Senecio* for the genus of the plant, from the latin *Senex*, an old man, whose “hoary hairs” it may be thought to represent. Though the humble Groundsel is now little thought of, except by those who keep goldfinches or canaries, yet in the hands of the old “simplers,” it held considerable rank as a *herb of power*. Culpepper says it is “a gallant and universal medicine;”—“lay by your learned receipts,” he exclaims, “*this herb alone*, preserved in a syrup,

in a distilled water, or in an ointment, shall do the deed for you in all hot diseases; and shall do it—I. Safely. II. Speedily.”

The second flower that now meets the eye in sheltered spots about the hedges, is the Red Dead Nettle (*Lamium purpureum*), which, with its roseate corolla concealing the brilliant scarlet anthers under its protecting hood, well deserves a close examination. Then there is the Daisy, timorously peeping here and there on the grass-plot, as if reminding us that bad as things in general look, *hope* is not quite extinct. And last of all, somewhere or other, the Prickly Furze (*Ulex Europæus*), with its bright yellow clusters often glazed with the hoar frost, and daring a touch from any intruding finger, marks with one *remanet* of beauty the else desolate and cheerless waste.

“It is bristled with thorns, I confess,

But so is the much flattered *Rose* ;—

Is the sweetbriar lauded the less

Because among prickles it grows ?

’Twere to cut off an epigram’s point,

Or disfurnish a knight of his spurs,

If we foolishly wish’d to disjoint

Its arms from the lance-bearing Furze.”

Such is the *dictum* of Horace Smith, and we hope therefore that no person will wish the Furze or Gorse a thorn less, except stern Destiny insert one in his fingers or toes. We well remember a rough gymnastic game among boys which used to be called “*Stocking Gorse*,” and consisted in placing the unfortunate personification of the stocker upon his back, when his legs were twirled over his head and forcibly struck upon the ground, till—“hold, enough!” was the cry. As in the present day the Gorse has suffered

considerable diminution from enclosures in all directions, we conclude there is less necessity for the *stocking* process, and it has probably ceased; but the name of "Stockings" frequently occurs in county maps, and we may, therefore, here observe that it has nothing to do with a *pair* of those useful articles, as many usually suppose, but refers to the original and actual *stockings of gorse* that took place when the land was first enclosed from the waste. But we have *stocked up* enough for the present month, though we frankly confess that the *stock* of flowers here displayed is not likely to fetch much in the market: all that we can say is, that we must "*look out*" for brighter days.

Three remarkable aspects of nature may be presented to the notice of a Student of Nature in January. Should the weather be settled frost, the crisp fields will tempt his vagrant steps to thread the meanders of the whimpering brook, overhung with grotesque gnarled oaks, its sides glittering with glassy ice, marking the late height of the stream among the bushes, while crackling fragments keep perpetually falling, and from the unfrozen water perchance he rouses the sapphire-winged Kingfisher. If the frost retreats, all is calm and brilliant as summer, and the Missel Thrush keeps ceaselessly singing;—or, in sterner mood, blasts bellow among the hollows of the mountains, clouds scud before the western gale, vapours majestically stalk like phantoms over the distant hills, and though wandering beams burnish, with unwonted brightness, many a wood or rocky ridge in the wide landscape, the transient brilliance only augurs the furious rush of the on-coming stormy commotion.

EXPLORATORY NOTICES FOR JANUARY.

The practical Botanist need not be idle in fine weather even at this seemingly ungenial season; for Cryptogamic vegetation is now in its highest perfection among several tribes. Rocks, and gloomy pattering spots among trees, should now be examined for the minute but exquisitely beautiful and curious *Jungermannia*, many of whose matured *thecæ* may now be perceived in perfection. These if collected in a semi-expanded state, may by the application of water be made to burst under the eye; or if placed in a damp spot the over night will be found expanded in the morning, like a cruciform flower at the end of a long white transparent petiole, while a heap of brown dust, the reproductive sporules of the plant lies at its feet. Among this dust the microscope will show a number of *chain-like* processes, the use of which has not been determined. I, however, conceive them to be intended to scatter the sporules from the *thecæ* by their violent contraction and dilatation at the time it unfolds, which may be thus exemplified. The *Jungermannia* is excessively susceptible to moisture, shrivelling up quickly without it, and remaining in a state of abeyance, but some portion of heat is required to expand the *thecæ*;—the moment this is applied its valves burst open, exposing their delicate contents, and the irritation thus occasioned by the light appears to cause a violent contraction

and dilatation of the chains interspersed among the sporules, which continues till the whole of them are violently expelled from their nidus. This is evident by placing an unexpanded theca on the ledge of a pane of glass in the sun, when a lens will exhibit the most singular commotion within the theca as soon as its valves open, as if an immense number of minute serpents were writhing in the most dreadful agonies, and combating each other with unmitigable fury till not one was left alive upon the field.

The *Lichens* are now in glorious perfection on rock and tree, tempting the foot to the broken rocks of alpine solitudes, or the dark and devious recesses of the grove and forest. It is but lost time attempting to dislodge lichens from the rocks in summer—when *skinning flints* is really hard work; but at this time, expecting no visitants, they are taken by surprise, and easily secured, as the frost either scales off the rock with the lichens upon it, or the moisture swells the lichen above the surface to which it is so closely attached in the burning heats of summer. Thus captured, the vital principle becomes suspended in the crustaceous lichen, to be again renewed, however, at whatever distance of time, when exposed to the external atmosphere.

WILD FLOWERS OF FEBRUARY.

CHAP. III.

VARIOUS TINTS OF BUDS AND TWIGS IN THE SUNBEAMS—
BRILLIANT EFFECTS OF A FROZEN SHOWER—DANDELION,
VERONICA, DAISY—MOSSES IN PERFECTION OF BEAUTY—
HELLEBORE, PERIWINKLE—SUDDEN SNOW STORM.

“ And now comes the calm mild day, as still such days will come,
To call the Squirrel and the Bee from out their winter home.”

BRYANT.

“ *Post nubila Phæbus* ”—sunshine after bluster—is not unfrequently the case in February ; it will be well however not to hallo before we are out of the wood, but yet enjoy a fine bright day when it comes. The budding of deciduous trees never appears to better perfection than in this month, and the various divariations their branches present, when in relief against a clear blue sky, offers a pleasing and interesting spectacle. The general idea of a leafless tree is that of a cold denuded surface, on which no tint of beauty reposes ; but how false the supposition. As the sun in his retreat westward now breaks forth in effulgence from an amber cloud, and his horizontal beams light up the groves and trees, what vivid tints rise as by enchantment at the heads and extremities of the

branches of a hundred scattered veterans of the forest, whose glazed buds, already preparing for the spring campaign, were not before apparent. The Elm tops display a crowded assemblage of light brown slender twigs; a golden ray now glancing on the Willows shows the vinous hue of their long-extending rods; the Sycamore displays its buds of pale green; the still paler catkins of the Birch are seen amidst its quivering branches and silver stems; in dark array the digitated polished buds of the Wych Hazel appear; while wherever the sun lights up an avenue of Limes, coral and crimson tints beautify in brilliant but evanescent displays its shadowy arcades.

Occasionally a charming spectacle is presented to the admiring eye amidst the recesses of the hills, when a shower of rain has *frozen* as it fell upon the woods and coppices, encasing their buds with an envelope of the most brilliant chrystal. In the vagrant beams of the morning, the trees sparkle with their icy load, as if robed by enchantment, and, as the breeze plays among their topmost branches, a shower of crackling spiculæ falls about on all sides, scaring the chattering Fieldfares and Redwings as they attempt a descent, and swarm about their old accustomed perches; while the frightened Squirrel, leaping madly from bough to bough, increases the noise and the shower in his career; and the blue-winged Jays, ever jealous of an intrusion on their retired haunts, raise their reiterated screams with tenfold pertinacity. Well, we have at last reached a sheltered glade in the wood, a retired nook where "folly is shut out," and yet where the warm sunbeams penetrate to and cheer us after a long per-

ambulation along the hill side, over crisp brown brakes and pallid withered moss. All is dark and shadowy out of the direct course of the solar beams, but here and there amidst the wood a ragged lichenized rock juts forth, like some hoary bard of ancient days, to diversify the gloom; but over head the deep blue sky is calm and serene as a May-day, the lark is carolling his matin hymn there, and amidst the alders and holly bushes that girdle round the faint glimmering pool and swamps below, the sable bird "with orange-tawny bill," is whistling his cadences to hasten on spring from amongst the yet unexpanded primroses; while slowly journeying, high in air, a whole tribe of cawing rooks are hastening to their nest-trees.

How pleasant it is now to come unexpectedly upon some warm sunny bank that surly winter seems to have forgotten to have visited in his wrath, and where all is mild, genial, and invigorating. There the Dandelion shows his golden mimic sun, the pale blue-eyed Veronica (either *polita* or *hederifolia*) languidly opens her azure blossom, and a band of laughing Daisies,

— "Ever alike fair and fresh of hewe,
As well in winter as in summer newe,"

as Father CHAUCER wordeth it, revel in the bright but transient beams of the halcyon noon of February. The little "crimson tipped" Daisy, so characteristic of the pastures of temperate climes, but unknown in the east and unfitted for the heat of the tropics, has been much noticed by DRYDEN, and many other English bards, and being among the earliest of Flora's primeval train, to spangle the meadows, ever meets the

eye with pleasant reminiscences. However early in the year it is seen, still its starry petals are tinged with sunset hues—"purple with the north wind"—as if *reddened* with the glow of health and exposure, as MARY HOWITT poetically expresses it; and we note star after star whitening the pastures, as we see stars glow one after another on the robe of evening, until, as a silver cloud spread upon the scene, the multiplied Daisies in combination pillow the lap of earth, and proclaim the advance of matured spring. Whether the Daisy really derived its name as being the "cic of the daye," and open only to the call of the sun, or not, we are all familiar with its *closing up at night*—the signal to children in the country that, as the Daisy was gone to sleep, it was time for them to go to bed. The double red Daisy is a familiar denizen of rustic gardens, often lining their borders, and well-associated with the old timber-ribbed thatched cottage, so pleasantly combining with trees and village churches, but now dying away before incursive railroads and thundering locomotives. The singular proliferous variety called the Hen and Chickens Daisy, because the disc of the flowers is surrounded by numerous subsidiary smaller ones, was we remember a favourite, cherished in our little boyish garden, when our mind, like it, was all made up of fancies and flowery conceits—both being, in the lapse of years, trodden down, abandoned, and obscured by the rank weeds that form the realities of life. Yet the old Hen and Chicken Daisy, now so seldom seen, links my mind to the cherished thoughts of the past—and revives emotions that had slumbered, and hopes that might almost urge the tired spirits to further efforts. Not in vain are such

refreshing flowers of memory contemplated, for they recall

“ Some steady love, some brief delight,
Some memory that had taken flight,
Some chime of fancy, wrong or right,
Or stray invention.”*

Thoughts, actions, poetry, may thus arise in the mind, from what might seem to many an object of indifference, but thus observation works even from sympathy with common things and the every day operations of nature.

It is hardly worth while to look at the Garden *yet*, though, if snow and frost do not entirely erminize the scene with their pale habiliments, it is evident that *something* is stirring in the ground; and here and there verdant patches are appearing, which we must have patience to wait a week or two ere we behold their results. Plants, like thoughts and ideas, require time to come up and develop themselves.

The *Mosses* are now in their perfection of verdure, beautifying, with their soft close robe, many a rock, damp wall, thatched roof, or old prostrated trunk. They bear no flowers, but their elevated urns, covered with a warm hairy cap, as in the *Polytrichi*, veiled from the rude blast as in many genera, or fringed curiously about their orifices as in the majority of species, all discover the same care for the protection of the sporules from which the young Mosses are to spring, as in the plants whose more specious aspect, and more highly-developed organs, seem to have stronger claims upon our notice. The Mosses are *Nature's coverlid*, which she casts lightly over every

* WORDSWORTH'S lines to the Daisy.

deformity. The dank stagnant marsh is hidden and overspread with the pale green, roseate, or silvery *Sphagni*, or Bog-mosses; the underwood assumes a golden hue from the bright piliated caps of the *Polytrichi*; every fallen trunk is quickly covered with the velvet *Hypni*; and wherever trees are burned in the woods, or fires lighted there, the black spots are quickly overgrown with dense masses of the *Funaria hygrometica*. And what roof or old wall is without its colony of green, grey, silvery, or purple-stemmed *Mosses*?

“ ’Tis Nature’s livery round the globe,
Where’er her wonders range :
The fresh embroidery of her robe,
Through ev’ry season’s change.
Through ev’ry clime, on ev’ry shore,
It clings, or creeps, or twines—
Where bleak Norwegian winters roar ;
Where tropic summer shines
With it the Squirrel builds its nest ;
In it the dormouse sleeps ;
It warm’s e’en Philomela’s breast ;
Through it the Lizard creeps.”

In the height of summer, to tread or recline upon the soft velvet Moss within the shady shrubbery, or upon the mountain side, as the sounds of evening rise upon the vales below, while the sun goes down to his mountain-bed in gorgeous splendour, and the scents of a host of odoriferous plants rise upon the gale and soothe the mind to meditative tranquillity, is one of the luxuries which a true lover of nature treasures up in his thoughts to enjoy over again in an afternoon nap at such a time as this. In Lapland curious portable bedding is made of the Golden-hair

Moss, and mattresses and door-mats in the North of England. The Bog-mosses (*Sphagna*) form the best possible packing for young trees, to send abroad. Minute as the vegetation of Mosses may at first sight appear, in the northern regions of the earth they now form nearly a fourth-part of the vegetation, and almost a thousand distinct species have been enumerated. They especially adorn and diversify alpine scenery, and variegate the horrid sublimity of cliffs that would otherwise frown only in horror, without a gleam of beauty to charm and interest the wanderer.—

“ It was a barren scene, and wild,
Where naked cliffs were rudely piled ;
But ever and anon between
Lay velvet tufts of loveliest green.

SCOTT.

In wild waste spots, or even occasionally in the vicinity of towns, whence it may have escaped from the nursing of cultivation, a flower of rank growth, grave aspect, and dull colouring, sometimes attracts the eye of the botanical observer, flourishing luxuriantly even at this cheerless period of the year, as if it were sensible it would be utterly passed over, as unworthy of notice at any other time. This is the Fetid Bearsfoot (*Helleborus fœtidus*), conspicuous where it does grow amidst the rubbish that environs it, by its dark digitated leaves and dirty green involute petals edged with deep purple. The following characteristic lines well describe the aspect of the plant just referred to :—

“ Within the moist and shady glade,
What plant in suit of green array’d,

All heedless of the wintry cold
Inhabits?—Foremost to unfold,
Tho' half conceal'd its bloom globose,
Whose petals green, o'erlapp'd and close,
Present each arch'd converging lip
Embroider'd with a purple tip ;
And green its floral leaves expand
With fingers like a mermaid's hand."*

It may be worth while, on one of the few sunny afternoons that even February affords, to linger in some little bosky copse open to the west, and rising high above the Severn, whose red brimfull stream proudly breasts the meadows below till it disappears in a broad crescent, gleaming like a scimitar in the sunbeams. The coppice is abundantly overspread with the evergreen leaves of the lesser Periwinkle (*Vinca minor*), entangling itself in every direction, and forming a grateful object for the eye to rest upon at this leafless time, while here and there the genial warmth has tempted a few of its bright blue flowers to expand, above which *Bombylius medius* poises as if fixed in air—again to vanish with the vagrant sunbeam. It is gone!—a cloud involves the setting sun, and in a moment shrouds him from view—blasts sweep pitilessly from the north, and bear along a volleyed cloud of snow flakes through the realms of air—mountain, wood, valley, and river, alike disappear amidst the blinding storm, and in the succeeding stillness of advanced night, the pale moon faintly shining in a circlet of white cloud, exhibits fields, woods, and hills, again invested with the soft, pure, and dazzling ermined robe of winter.

WILD FLOWERS OF FEBRUARY.

(CONTINUED.)

CHAP. IV.

THE AWAKENING OF SPRING IN THE COUNTRY AND THE CITY.—APPEARANCE OF GELATINOUS FUNGI.—MISERIES OF A THAW.—SNOWDROPS.

“Already now the snowdrop dares appear,
The first pale blossom of the unripened year.”

MRS. BARBAULD.

METHINKS I hear a rustling among the withered brown leaves that have lain so long matted together in frozen silence within the deep glades of the sombre wood. Is it the hare starting from her form to revel in the mild radiance of a February sun? Is it the speckled snake slowly uncurling from its long repose to glide to the nearest warm slope, couched beneath the shelter of the prickly but golden gorse? No!—Softly!—Spring *herself* is awakening!

Look to the sunny side of that still leafless grove—green oases begin to appear in the withered expanse;—the shining leaves of the pilewort are springing up, chickweed reviving as quickly as hope resumes a living aspect, and horehound and other herbs show the green leaf that proclaims peace from wintry storms. The Spurge Laurel (*Daphne Laureola*), with its shining deep green leaves, is now about to expand its pale

green flowers, that would be scarcely noticed at any other time, and which LINNÆUS says are "sad in colour, ungrateful in scent, and blossoming in a gloomy season;"—but LINNÆUS must have been in a melancholy humour when he wrote this, for in my view the shining *dark* green leaves and bright *light* green flowers of the plant, appear in the leafless woods with a pleasing effect. Indeed Spurge Laurel looks grateful to the eye upon the verge of the thicket at any time. The leaves *only* of the *Arum* are now pleasingly dotting the banks; and here and there an occasional fair Primrose, like one or two specks of blue sky in a stormy day, embellishes the present and tells hopefully for the future scene. But we must be patient—Spring is only *awakening*!

In the garden hosts of green leaves are bursting the sombre mould, gladdening the exploring eye; and the Snowdrops, those "fair maids of February," pale and pensive as the demurest nun, and white and spotless as the snowflake itself, are "coming out" for the season. The little sprightly Aconite (*Eranthis hyemalis*), too, is now seen flaunting in green and gold beside the border:

———— "Winter Aconite,

Its butter-cup-like flowers that shut at night,
With green leaf furling round its cup of gold;*

rather too gay to be quite in keeping with the aspect of things around; and that beautiful evergreen the Laurustinus (*Viburnum tinus*), is displaying full joyously its profuse clusters of white flowers. Even in the garden—SPRING IS AWAKENING!

In the country the naturalist now hears dulcet

sounds mingling with his morning meditations. The blue Nuthatch briskly taps upon the bough, shakes off a load of encrusting lichens, and as he snaps up the insects beneath, loudly chirps his delight. The great Tit, instead of his usual harsh *grate*, now attempts a brisk but imperfect madrigal. Its four or five notes rapidly repeated sounds like a shrill bell. The Blackbird commences his musical intonations morning and evening, and the Woodlark sings soft and sweet. This is the prelude to the concert that must soon arise, for—SPRING IS AWAKENING!

As a gleam of sunshine breaks in upon the dusty room (for the sanctum of a student or virtuoso is sure to be dusty), out pops a blue-bottle fly, weakly buzzing as he inspects the state of affairs; retiring again with the withdrawn vagrant ray of light back to his dark snuggerly behind unopened books; while a stern *Sir Forceps*, who has marked him from a sly corner, tightens his strings, mends his nets, and begins to prepare for the active hostilities of a new campaign. The student, with some surprise, now begins to *see* how the dust has gathered about him—for *Spring is awakening* even here!

Slower, from amidst the smoke and blackened steeples of the city, where dark blinds and dingy curtains shut out the stranger sun, and grimy soot invests the leaves of hapless plants confined there, signs of saddened light, sluggard but awakening, appear at last. For in the boudoir fair ladies now smile to see that their Hyacinths (all varieties of the oriental Hyacinth, *H. orientalis*),* are giving evident signs of

* The Dutch florists, who are great cultivators of the Hyacinth, and raise them extensively from the bulb for the market, now enumerate more than *two thousand* varieties. Some of the rare double ones are highly esteemed, and bear as high a price as £10.

speedily, or even now, exhibiting a show of rich fragrant flowers in their white, or green, or purple glasses, and "Ma" is surprised to see the sun, and "Pa" throws up the window for a moment, and young heads and hearts begin to fidget, and flutter, and beat! In short all the "gloomy weather" of almanack makers is at once forgotten, and while the sun shines, nothing but walks and rides, and visits, and balls, and last, "not least," new dresses to replace the dowdy ones of winter, can be talked or thought of; and thus it must and ever will be so when spring gives signs of its *awakening*. Another short slumber, and the winds of March will shake it *wide awake*!

It frequently happens at this season of the year, if wet weather prevail, (for on the average of years the month will not bely its name of "February fill-dike,") that various coloured gelatinous substances present themselves on sticks, posts, rotten branches of trees, &c., as if jellies had been sportively thrown about, or had dropt from the sky. Various opinions formerly prevailed as to their origin; and it was vulgarly supposed they were relics of fallen stars! It is now well understood that these curious substances belong to that division of the vegetable kingdom denominated *fungi*, and have sporidia immersed in their mass, from whence fresh plants are produced, although unable to luxuriate except in an atmosphere saturated with moisture. Hence, under the influence of the sun they dry up and entirely disappear. Some of these vegetable jellies have very rich colours, and trembling as they lie swelled out with moisture, have taken the name of *tremellini*. The *tremella deliquescens*, frequently seen on old posts and decayed stems of annual

plants, has been called St. Gudula's lamp, from its brilliant yellow colour, apparent and sparkling at a considerable distance. Others are white like paste, and some are bespattered about like the brains of animals. All present singular aspects, and probably nourish peculiar minute animalculæ.

In reference to the wet weather that often occurs at this season, FORSTER quaintly observes—that it is “frequently showery, and *then* the ditches are full and streaming.”* Such a state of things HOWITT depicts in the following language, which it must be confessed is a miserable “*look out*” indeed:—It will be, therefore, perhaps better to keep within doors at present, unless the doctor be wanted. “All things are dripping with wet: it hangs upon the walls like a heavy dew; it penetrates into the drawers and wardrobes of your warmest chambers; and you are surprised at the unusual dampness of your clothes, linen, books, and papers; and in short almost every thing you have occasion to examine. Brick and stone floors are now dangerous things for delicate and thinly-shod people to stand upon. To this source, and in fact to the damps of this month operating in various ways, may be attributed not a few of the colds, coughs, and consumptions, so prevalent in England. Pavements are now frequently so much elevated by the expansion of the moisture beneath, as to obstruct the opening and shutting of doors and gates; and your gravel walks resemble saturated sponges. Abroad the streets are flooded with muddy water, and slippery with patches of half-thawed ice and snow, which strike through your shoes in a moment. The houses and

* Perennial Calendar.

all objects have a dirty and disconsolate aspect. In the country the roads are full of mire, and you have naked hedges, pastures half submersed in water, with dirty patches and loosened stones.”*

It must, indeed, be admitted, that about the close of February a continued thaw brings about all the unpleasantnesses just depicted, the mountains are wreathed with mist, clouds involve the sky, obscure the woods and meads, and every brook is

“Foaming brown with double speed,”†

while the garden or grove dripping with the falling torrents, presents only mournful objects for the eye to repose upon. But this humidity is the process that Nature requires, by which sufficient moisture may be stored up in her secret repositories, to form a fund to nourish the numerous flowers that she even now contemplates in embryo, and which she will in due time awaken and produce. Therefore, at present, we will not proceed beyond our tether, but take the *seasonable* weather that the season itself demands—for

“Now old Aquarius from his rainie urne,
Pours out the streams, and fills both loch and burne;
While *Februa*, with waterie load opprest,
Cracks the crimp ice on Winter’s frozen breast;
Then seated on some sunnie brae, she strowes
About her feet the Snowdrop and Primrose.”

And so have we seen them adorning many a “sunny brae” about this time, nor is it easy to depict the beautiful aspect of the Snowdrop, when in a truly wild state, as in some glens of the Malvern hills, where hundreds of its stainless bells droop to earth as if dashed at random by the hand of Flora wide over mead, and bank, and wood.

* HOWITT’S “Book of the Seasons.”

† W. SCOTT.

It has been doubted by some botanists whether the Snowdrop be really indigenous to Britain, and it is supposed that the monks of old, who had dedicated its "pendent flakes of vegetating snow" to the Virgin, might have introduced it from Italy. PHILLIPS, in his "*Flora Historica*," mentions that in a Dutch work on bulbous flowers, published in 1614, it was then stated to be very seldom found excepting in the gardens of the curious, and remarks that no allusions are made to it by our early poets. In the spot above indicated, at the northern base of the Herefordshire Beacon, or Camp hill, it has every appearance of being genuinely wild, and this spot is nearly a mile from Little Malvern Priory. Here it was noticed by WITHERING more than half a century ago. Many other English localities have been given for the Snowdrop, but its increase from the parent bulb, when once thrown out of a garden, may well account for its naturalization in so many places.

February has generally a few oases of brightness, kindly intended by Providence for the plants that flower at this early time; they take advantage of the sunny gleam, birds sing, the sky is calm and blue, and Winter seems gone. But the tyrant returns in haste, and quickly represses the transient smile, gloomily involving all things in cold and sadness once again. Then at the close of the month dreary is the external aspect of nature to the exploring eye, weary of the monotony of the house, and anxious to look out somewhere. Leaden clouds involve all things, and vapours from the south dash continuously over the reeking landscape. Dimly amidst the fogs the distant mountains, robed in snow and half hidden in clouds,

sternly appear in the distance like *frowning friends*, keeping far off while the mists of adversity are about us—cold as the snow upon their sides. And yet when summer smiles upon us, and we shall have earned the flowers we bear, these distant friends will then approach to pluck and seize the product of our toil—*they will scent us out then!* Cold comfort must be now our lot, for such is even floral life; but in a stormy sky not the less beautiful are the little but distant inlets of deep blue sky, that tell of tranquillity beyond the clouds, and of sweet enjoyment when the lowering vapours have passed away.

EXPLORATORY NOTICES FOR FEBRUARY.

The *Jungermannia* should still be attended to on the hills and among the woods, and *lichenizing* will also employ the cryptogamic botanist advantageously. The Crabs-eye and Tartareous Lichens appear in full fructification on rocks and precipices, and sometimes a wall of sandstone will exhibit a wide and beautiful array of the singular *Beomyces rufus*, like a host of petrified brown nails; while the trunks of trees inhabited by the *Spiloma gregarium* are splendidly decorated with patches of crimson sporules. Many an old barn door too is painted with green, white, or golden yellow, by the *Lepraria flava* and other Lichens. On old oaks, rugged with furrowed bark, as well on decayed paling, crops of several species of *Calicium* appear like crowded black sprigs stuck into the wood.

Various genera of Mosses now decorate "the solitary place," lovely in their urn or cup-like fructification, especially the *Grimmia* and *Gymnostomi*, while the very minute *Phascum* almost eludes the eye to find it. Yet the *Phascum cuspidatum* with its brown polished theca without fringe or opening, may be now found, if sought for, in almost any shrubbery. In similar spots the *Dicranum taxifolium* is distinguishable by its broad sharp-cut leaves, and the *Hypni* and *Tortulae*, the latter with their singular twisted peristomes, are abundant every where. In woods the

Polytrichum communis exhibits its stiff green leaves, like groves of fairy palms.

At this damp time, the *Fungi* offer an abundant source for examination and research, especially the smaller kinds of *Trichiæ*, *Pezizæ*, &c. and the curious *Tremellini*. It may be easily noticed how the flabeliform masses of the latter all arise from simple spheroids, the primordial form of this fungus, pressed and crowded by amalgamating together in their rapid growth, as on damp old pales, hundreds of the common yellow *Tremella* may be often seen scattered about, and almost all perfectly globular. The bright blue *Auricularia* (*A. phosphorea*), and others of the same family, are now in full perfection, and on old decaying stumps the purple *Phlebia mesenterica* often appears very conspicuous, as well as the intricately lobed varieties of *Thelephoræ*, and the hairy fingers of *Clavariæ*. In woods the labyrinthal *Dædalea Quercina* has a curious aspect at the roots of trees.

WILD FLOWERS OF MARCH.

CHAP. V.

A MARCH MORNING ON MALVERN HILLS.—CROCUSES, MEZE-
REON, APRICOT, PYRUS JAPONICA, &c.—FLOWERS OF THE
WOODS AND FIELDS.—FLOWERING OF THE HAZLE, YEW,
AND ELM.

“ Mild-breathing Zephyr, father of the Spring,
Who in the verdant meads doth reign sole king,
Who, shelter'd here, shrunk from the wintry day,
And careless slept the stormy hours away,
Hath rous'd himself, and shook his feathers wet
With purple-swelling odours, and hath let
The sweet and fruitful dew fall on this ground,
To force out all the flowers that might be found.”

BEN JONSON.

We are all familiar with March winds, and nobody doubts but that they will blow; but the particular days on which such *blustrations* are to take effect, this deponent saith not. Let any one, however, who is unfamiliar with these “blustering railers,” only pay a visit to the iced mountain top, or even to such hills as Malvern or the Cotteswolds, and he will be fully awakened to the excitations of the freshening gale. Once in the early part of this very month, we remember scaling the ridge of Malvern with a companion in adventure, many years ago, and the scene was strongly

impressed upon our memory. So furious was the rush of the wind over the summit, that we were unable to stand against it, and clung prostrate to the rock for security, while its vehement thunder rendered it impossible for us to hear each other speak. But the scene to the eye, looking towards the Cambrian mountains, was peculiarly impressive, for covered with snow, their indented chains belted the wide horizon in bold relief against a cloudless azure sky, ridge beyond ridge, to the extremest bound of vision, in majestic perspective, effacing for the moment the keen perception of the bitter cold of the blast, and its tremendous power.

With regard to plants and flowers, our more legitimate province, we only undertake to strike the averages of the seasons, premising that any flowers we mention may be met with in bloom, in England or Wales, in some portion of the month under which our observations appear. The garden now begins to "look up," and rows of glowing yellow Crocuses give an evanescent splendour to its borders, especially if the sun shines; for otherwise, though unable to "droop the languid lid," they sulkily refuse to open their coloured petals at all. The *vernal Crocus* might indeed have been mentioned in February, but it is *now*, when the different species or varieties are seen in unison—the yellow, the cloth of gold, the pale lilac, the striped, and the blue—that the most beautiful picture is brought before the eye. All the Crocuses continue blowing throughout March, and more than thirty varieties are cultivated in the Horticultural Society's Garden, at Chiswick. "Early in Lent," says Mr. FORSTER, "we frequently see Crocuses

flowering in abundance in pots in windows in London; and for these situations sand alone, or sand mixed with a little dirt, is the best soil." It is a pity, so beautiful as the Crocus is,—

—" the flower of Hope, whose hue
Is bright with coming joy :"—

that its duration, like most joys of earth, should be so short as scarcely to repay the trouble of planting it in pots or boxes for the drawing-room windows. If, however, about two dozen sets of boxes were kept, to appear in succession as the season advanced, a very pleasing effect might be produced, far preferable to keeping merely one dingy long box, which, though sometimes fragrant with a patch of Mignonette, too often scarcely seems to contain vegetable life within its creaky boundaries.

The spring Crocus (*C. vernus*), is a native of Italy, Spain, and central Europe, but can hardly be considered as truly wild in Britain, though naturalized in various places, and at present found plentifully in meadows about Nottingham. GERARD appears to have first had it in England in the reign of ELIZABETH, and records it as " that pleasant plant that bringeth forth yellow flowers, was sent unto me from ROBINUS, of Paris."

Just now the Mezereon (*Daphne Mezereon*), makes a beautiful appearance—all flowers—let the weather be ever so severe, and its empurpled dyes and perfumed fragrance render it an universal favourite at a season like this, when floral joys are scanty. Its transient purpose answered, it meets with the "common lot," and as Summer comes brightly on, the Mezereon is entirely forgotten, till, amidst denuded

foliage and dearth of sweets, its humble aspect, "thick beset with blushing wreaths," forces itself upon the admiring observation. Not intending often to moralize, the Mezereon tempts one to observe briefly at this moment, that it offers an illustration of the homely proverb—"Begin as you can hold out." The Mezereon flashes for a brief day all splendour, and no compeer can rival it; but in a month it is sought for in vain—stunted in its growth, and no fruit following its bright flowers deserving of any attention, it is absolutely lost and confounded amidst the loftier and more enduring shrubs that environ it, and no one unacquainted with its history would suppose that, insignificant as it then appears, it ever made any pretensions to be considered the gem of the garden. A darker analogy might in fact be drawn, for the small red berries that finally appear on the Mezereon, are a powerful poison. The *Daphne Mezereon* is a rare denizen of English woods, and is seldom met with by the exploring botanist. It grows wild in the woods near Stanford, Worcestershire, and is said to be not uncommon in the beech woods of Buckinghamshire.

Another curious early-flowering plant may now be noticed, in Epping and other southern English forests—the evergreen Butcher's Broom (*Ruscus aculeatus*). This curious, sturdy, and rigid-leaved plant bears its flowers in a most singular and anomalous manner, upon the middle of the upper surface of its leaves, one only in general being present on each leaf, subtended by a scarious bract. In the autumn bright red berries appear in the former position of the small flowers, as if thrown by accident on the sharp-pointed leaves.

If the Apricot (*Prunus Armeniaca*), now exhibits a

ing upon the bright ruby pistils situated beneath them in a separate position, offers a familiar illustration of that curious structure in the fructifying organs of plants on which Linnæus founded his "Sexual System." The sombre Yew now also flowers, and the female Aspen (*Populus tremula*), presents a curious appearance with its numerous catkins of downy seeds, very conspicuous in marshy woods. The Yew (*Taxus baccata*), being a diœcious tree, evidently flowers at this season that the farina of the male blossoms may be dispersed far and wide by the winds, and thus more surely conveyed to the females, which are on separate trees often long distances apart. If a very small sprig of male unexpanded flowers be gathered, they will soon burst open, and if ever so slightly touched, a cloud of dust fills the room where they may be placed, ready to escape into the open air—so admirably are the mechanisms of all nature's structures adapted to fulfil the purpose assigned them!—"Flowers of all hues" will now very soon appear.

About the middle of the month, the Elm (*Ulmus campestris*) displays its sessile tufts of purplish flowers, which, though making no pretensions to beauty in themselves, yet crowded together on the upper branches of the tree, present a rich vinous tint pleasing to the eye when the sun darts his rays bright upon them. But amidst storms and blasts, too often the concomitants of the season, they may be altogether unnoticed. The common Elm, though most probably introduced into Britain by the Romans, for it no where grows wild in our woods, has so multiplied itself in this country, from its numerous offsets and the tenacity of their endurance in the hedgerow, that

more than any other tree it now forms a characteristic feature in the scenery of an English landscape. Indeed as Selby remarks, the elm "is seen in its greatest perfection and beauty in the southern and midland parts of England, where it not only forms the avenues of the finest public walks and drives in the vicinity of towns and cities, and enters largely into the proportion of the trees which surround the residences and adorn the parks of our nobility and gentry, but is also the common and prevailing hedgerow timber in many districts, among which we need only particularize the valleys of the Thames and the Severn."* Hence the "Elmy Grange," at once recalls to the eye of memory the old English timbered mansion, with its carved gables and tall brick turreted chimneys, the moat half filled up and half remaining on the garden side, with steps leading down to it from the terrace walk, and the whole shaded by majestic surrounding elms coeval with the building their foliage envelopes. Indeed many a country residence has some old sylvan guardian of this kind beside its gate, all knotty, and ragged, and hollow, with broken arms, and bleached patches on its huge bole, bare of bark, like an old retainer grown grey in the service, yet resisting age and decay, and retaining his wonted position to the last.

Almost every place has its favourite old elm, of large dimensions, sanctified by some local name, often on a common, or beside a rustic inn, or fold yard,—once the resort of buoyant childhood,—now abandoned for ever—and yet a hallowed landmark in the tearful vista of memory. Such roadside elms are often pictu-

* SELBY'S *British Forest Trees*, 8vo. p. 105.

resque objects, and attract the curious eye of the passing traveller—as the *Crawley Elm*, on the road from London to Brighton, which contains an apartment paved with brick; the Rotherwas Elm, near Hereford; and Piff's and Maul's Elms, near Cheltenham. The "One Elm" at Stratford-upon-Avon, a contemporary of Shakspeare's as a parochial boundary, and only recently cut down in the ruthless or careless spirit too often prevalent among ignorant or assumptive provincial officials, had been long regarded with reverence, and many other old trees of association might be mentioned. A very curious and picturesque old Elm still stands on Barnard's Green near Great Malvern, Worcestershire, bearing a manorial notice on its aged trunk, which is hollow, with monstrous extending roots spreading round on every side, its branches

"bald with high antiquity,"

and perhaps in existence when DESPENCER, as Chief Justice of the Forests, held his court in Malvern Chace, in the reign of EDWARD II. The steward of the manor was about to fell this tree as useless a few years ago, but the copyholders of the vicinity resisted this unkind attack upon their old friend, and insisted on his right to maintain his position on the common; and after some dispute, the lord of the manor agreed to allow the old Elm his life interest on the green, subject only to a quit-rent to the merciless winds. So venerable in decay he still stands, with an heir apparent rising beside him. The elm, when old, often puts on a very distorted and wenny appearance, swelling especially about the roots, and when too often pollarded, becomes so black, stumpy, and hollow, as to

seem as if the row in which it stands had been subjected to all the horrors of a cannonade. The elmy grange has generally a rookery attached to it, where securely located among the topmost forks of the elms, the sable birds add to the rural sounds that rise around them, a hoarse cawing that tells of coming vernal hours, and sounds not ungrateful to the ear of the observant naturalist.

The Wytch Hazle (*Ulmus montana*), whose gnarled monstrous headed twiggy stumps grotesquely impend above many a ravine or ancient holloway, has its spreading branches at this period amply covered with a conspicuous inflorescence.

When wandering about in many-weathered March, if not with an object in view, yet seeking for one to sooth or aid the mind by suggestive reflections, some ruined wall or desolate fragment of castle or abbey perhaps arrests the gazing eye, where sweetening decay, the familiar Wall-flower brightens the gray fabric with its golden spreading petals. Like the martin among birds it loves the "coign of 'vantage" or the vacant sculptured niche of the desolate priory, as if it would hint to man how far more beautiful its natural position when left to itself than when cramped in an artificial border. So genius overleaps the trammels of society and revels in its own aspirations. Yet it is remarkable that in this country it is only an escape of domestication—a captive that has broken its garden chain, although a true denizen of the south of Europe. But the power of association has with the poet's aid linked it to ruined walls and broken battlements, where it asserts its fragrant rule by day, leaving the owl and the ivy to the terrors of romance and night.

WILD FLOWERS OF MARCH.

(CONTINUED.)

CHAP. VI.

VERNAL INDICATIONS.—VARIOUS SPECIES OF VIOLETS.—
GOLDEN SAXIFRAGE, TUBEROUS MOSCHATEL, WHITE AND
YELLOW AWLWORTS.—DAFFODILS AND SALLOWS.—WIND-
FLOWER.

“ Smell at my *Violets* !—I found them where
The liquid south stole o’er them, on a bank
That lean’d to running water. There’s to me
A daintiness about these early flowers
That touches one like poetry.”

The practical botanist now begins to have something to do, and unable to restrain himself as the sun beams forth in splendour from an azure sky, is off to the deep recesses of the wood. The book of nature has always something instructive on its opening pages, and should nothing better than an old yawning and decaying stump meet the view, ugly and dissightly to a common observer, it may be worthy of botanical notice. Its chinks may be studded with the curious *Bulgaria inquinans*, forming numerous black balls of a leathery consistency, or great *polypori* may, like relentless creditors, be the destroying incubi of its last resources. But this is mere still life, and there

are now actual indications of activity in sound and motion, so that even the admirers of nature's *beauties* only, who take a walk at this season, cannot fail to be roused into poetical excitement by the return of those appearances which are bound up with the remembrances of former days. Three things at least now in turn speak to the eye, the ear, and the senses. In the balmy freshness of morning the hoarse cooing of the Ringdove, or Quice, sounds singularly plaintive upon the ear. Called into life by a steady burning ray of light, up springs to allure, amuse, and surprise the charmed eye, a carmine-coloured or sulphur-winged butterfly, oscillating about like a primrose floating before the wind;—and, oh! delicious excitement, the perfume of the *March violet* becomes sensibly perceptible.

“Smell at my Violets!”—ah, indeed, their smell at once recalls a thousand blissful hours of early life, when the holiday afternoon was devoted to *violeting* in the wild sequestered lane or solitary wood-side, and when thoughts, and hopes, and joys, were beautiful and odorous as the countless white and purple violets opening in beauty on the sides of the bosky dingle, as yet undimmed and unwithered by the constant action of burning suns. Where are the hopes and joys of early life now?—alas, man has his violet season but once only!

“Smell at my violets!”—yes, but we must first find out where they are, and these “lowliest children of the ground,” are often difficult to get at, though the fragrance they diffuse around is so very obvious. Do’nt tell me of the garden; I must now have genuine *wild* violets—these were the charmers of my early

days, and these alone can recall the past vision now.—Ah! there, as in olden days, still they are, on the very same bank as erst I knew them, when stooping, wond'ring, laughing, smelling, my first bouquet was gathered, and the white and purple violets were proudly marshalled in my hand, and blandly to all my young compeers was the cry—"Smell at my violets!"

Short; however, is the reign of the sweet March violets; they are lost like the charm of life's early spring, and are succeeded by other more specious violets *without scent*,—the "Dog-Violet," that, like the hopes of life, presents a fair picture, beautiful to the eye, but deceptive in the expected realization. There are, however, other violets that will rouse the botanist to exertion, if they do not tempt the exploration of the exciteful poet. A violet of fainter scent than the genuine *odorata* may be often noticed with its lateral petals devoid of hairs, and hence called *imberbis*; and the hairy-leaved violet, *Viola hirta*, the last of which is particularly fond of calcareous soil. Then there is the delicate little marsh violet (*V. palustris*), that crouches its fair form amidst dripping mosses and bogs; and the *Yellow Violet*, that confines itself to the bleak mountain side, and must be sought among the misty heights of Siluria and Dimetia; and there are yet two other familiar violets that flower all the summer in every waste spot—common and valueless as that universal production, advice—the *V. arvensis* or field Violet, and the *V. tricolor*, Heartsease, or three-coloured violet, from the latter of which all the large and showy varieties of the garden Pansy have originated—

"Heart's-ease, like a gallant bold,
In his cloth of purple and gold."

“Pansies—for thoughts,” says SHAKESPEARE, alluding to the French origin of the name,—pensée, thought, or *pensez à moi*—think of me, a garden equivalent to “forget-me-not.” “Love in idleness,” and “Kiss me at the garden gate,” are rustic names showing the pleasure which this familiar floral favourite was always regarded. But alas, there is no smell to these more showy violets. *Form* can be astonishingly varied by horticultural art, and *colour* singularly modified, but it is beyond the power of human skill to give odour to the “Dog-Violet,” or take it away from the sweet one. Country botanists, who know well enough what secluded lanes or distant dingles they must go to for the sweet violets, have been not a little surprized in the present day to find the Sweet Violet of their mossy glens and meadows, actually degraded in the “London Catalogue of the Botanical Society,” to a mere naturalized plant, as if it had stolen off from captivity, and was no aboriginal native. To such an extent may incredulity or absurd hypothesis carry a closet manufacturer of a catalogue. But the violet-embroidered vale, redolent of sweetness as we have seen it, like snow-flakes covering the ground by the brook side, in company with wood anemonies, never asked man’s aid for its location there, and no wanderer among nature’s sequestered scenes in the midland counties would ever dream of *stabbing* a sweet violet!*

The colours of the flowers of the *Viola odorata* are almost unaccountably varied—chiefly white, sometimes lilac or mulberry colour, or a deep purple-blue. The latter variety seems to prefer pastures, or

* In Floras and Botanical Catalogues, the † or dagger signifies a naturalized plant.

forms a *bank of violets*, giving forth the most exquisite perfume to the passing zephyrs. The spur or nectary of the violet, forming a bag by the junction of the lower petals for the reception of the secreted honey, merits particular attention. The common dog-violet is now known in our most recent floras as *Viola sylvatica*, and the term *canina* given to a kindred form that affects open places rather than woods.

There are two curious little plants to be met with in flower at this time in secluded spots by rocks and waterfalls, or even by some neglected brook side, known perhaps only to the wild duck or water-hen, who fly splashing away from the intruding foot of the botanist, who stands a fair chance of a fierce dash of hail upon his hapless head from the capricious hand of surly March—no great respecter of persons when in pettish mood. These plants are the tuberous Moschatel (*Adoxa moschatellina*), and the alternate-leaved Golden Saxifrage (*Chrysoplenium alternifolium*), the botanical names of both, when written in a tolerable sized hand, being about as long as the plants are high! The former is very pale, with very pale flowers, agglomerated together in a capitate form, and the meaning of the Latin trivial name is that they possess no glory! This epithet tempted me to perpetrate “an address” to little Miss *Adoxa*, snugly seated in her secluded but inglorious obscurity, and which I here transcribe from an old scrap of paper :

TO THE TUBEROUS MOSCHATEL

(*ADOXA MOSCHATELLINA*).

Ah! little *Adoxa*, they say

Thy flower possesses no glory;

But I'll at thy habitat stay,

And prove 'tis a palpable story.

For pale as thy leaflets appear,
 And pale as appears thy green coroll,
 Hid snug from the storms of the year,
 I see in its petals a moral.

Thou art but a *wee-one*, tis true,
 And held as unworthy the seeking ;
 Hid under the thicket from view,
 While the trees of the forest are creaking.

When March stirs the spirits of air,
 And clouds o'er each other are driving,
 The dingy floods rolling despair—
 Hope tracks thy unnotic'd arriving !

As when, o'er the shadows of night
 Appears the first semblance of dawning,
 How grateful that pledge of the light
 To illness, awake 'neath its awning.

So pale though Adoxa presents
 Her form, by the fountain scarce showing ;
 'Tis a signal that winter relents,
 And the Celandine soon will be glowing.

A blank is to nature unknown,
 There's still an unceasing creation,
 And down to the lichenized stone,
 All charm in their time and their station !

Who doubts it should open his eyes,
 Once purg'd, they'll reveal unknown wonders ;—
 So the cloudlet a speck on the skies,
 Joins the throng that embattles the thunders.

There is another little wild flower, very characteristic of the primaverall Flora, which never fails to delight the eye of the wandering botanist during March's froward reign, studding a thousand walls and rocks, and hills, with its innumerable silver cruciferous flowers. This is the *Draba verna*, which from its former fame of curing "the disease of the nailes called

a whitlow," still bears the common appellation of whitlow-grass. Old GERARDE, "Master in Chirurgie," whom we have just quoted as to this, in his quaint language thus describeth the plant, which, perhaps, will be intelligible enough even now to the non-botanical reader. "It is a very slender plant, having a few small leaves like the least chickweede, growing in little tufts, from the midst whereof rises up a small stalk, nine inches long, on whose top do growe verie little white flowers; which being past, there come in place small flat pouches, composed of three filmes; which being ripe, the two outsides fall away, leaving the middle part standing long time after, which is like white satin." Mossy roofs, or sandstone rocks, often present a pretty appearance at this season, when the sun shines out upon the expanding argent petals of this fairy plant.

The yellow *Draba aizoides* is now in flower on its only known habitat in Britain, the deserted walls of the secluded fortalice of Pennard Castle, in the peninsula of Gower, Glamorganshire, and the adjacent limestone rocks. Its singular aspect, there, will be noticed more in detail under the month of September, at which time, in 1839, I visited the spot. The vicinity, waste, wild, and desolate, has other temptations for the botanical explorer, particularly about Port Eynon, and the precipitous Worm's Head. Oxwich Bay, too, presents a silent scene of beauty to the explorer, and here, near the perforated rock, I have gathered the rare and curious *Medicago minima*, whose prickly spiral legumes are so interesting.

The garden becomes gaudy with the yellow glories of the well-known daffodil, which, showy as it is, and

therefore gladdening the exploring eye, has in such a position only the redeeming feature of its mention by SHAKSPEARE, as coming

“ Before the swallow dares,”

and thus appearing in the advance of more permanent delights—like a portrait that can only give satisfaction in the absence of the original it represents. We can, therefore, only tolerate the daffodil in the garden as Envoy Extraordinary of the floral queen, who takes a temporary position which more valued but tenderer plants would be unable at present to maintain. In the woods and on the hills, however, where this “Pseudo-Narcissus” of the botanist, and “Daffydown-dilly” of the rustic, spreads its roots by thousands, and now droops in glorious array an innumerable host of lemon-tinted bells, in contrast with the dark boundary of branches that lift their labyrinthal tracery against the deep blue sky, as we have seen with rapt pleasure, about the Malvern Hills, and in the undulations of the Forest of Dean, Gloucestershire, it is in its proper locality. There alone, when after a long ramble through deep lanes and brambly woods, with scarcely an object to diversify the gloomy sameness, when at last emerging from the dark thicket—a broad line of golden light, bursts to the astonished gaze, upon the virgin turf of the hill side, and a nearer view exhibits rank beyond rank, the bright pendent pennons of a countless host of daffodils, the charmed wanderer, as he gazes on the scene, fully recognizes the “beauty” thus combined with the rough winds of March, and long treasures in his memory the remembrance of the scene. WORDSWORTH has well

described such a sight among the romantic scenery of the Lakes :—

“ I wander’d lonely as a cloud
That floats on high o’er vales and hills,
When all at once I saw a crowd,
A host of golden Daffodils ;
Beside the lake, beneath the trees,
Fluttering and dancing in the breeze.

Continuous as the stars that shine
And twinkle on the milky way,
They stretch’d in never-ending line
Along the margin of a bay :
Ten thousand saw I at a glance
Tossing their heads in sprightly dance.

The waves beside them danced, but they
Out did the sparkling waves in glee :
A poet could not but be gay
In such a jocund company.

* * * *

I gaz’d and gaz’d but little thought
What wealth to me the show had brought ;
For oft when on my couch I lie,
In vacant or in pensive mood,
They flash upon that inward eye
That is the bliss of solitude,
And then my heart with pleasure fills,
And dances with the Daffodils.”

Such a prospect can, however, only reward the *untiring* botanist, who is not afraid to bivouac upon the green though chill turf, and wash down his sandwich with a draught from the pattering rill that splashes down the mossy rock. But whoever dares “look out” at all now without the precinct of the suburban garden, is sure to be gladdened with one bright gleam of vegetable beauty, upon the margin of

any pool, or even by the way-side. This is presented in the golden catkins of the Sallow (*Salix Capræa*), now in full perfection, and, if the morning be bright, recalling the acquaintance of many a buzzing and murmuring bee; yet it may probably have escaped attention, that no fruit ever arises from these specious catkins. It is so—but see, farther within the coppice there are other catkins without the alluring hue of gold. These on close examination are seen to be assemblages of pale green clammy ovaries, surmounted by spreading stigmas, intended to receive that splendid hued dust or farina which the golden male catkins before-mentioned give out, and which is conveyed to the female plant either by the agency of the bees or the rough blast. The winds of spring and autumn then, annoying though they often are, have their legitimate agencies to perform in nature's laboratory. In the one case they scatter about profusely the matured seeds that are waiting a favourable wind for their voyage; in the other, as in the yew, the hazle, and the willow, they waft about that fertilizing powder from plant to plant, without which process, in numerous instances, no fecundation could take place, and of course no fruit or seeds be produced by the plants thus curiously circumstanced.

Where the Alder (*Alnus glutinosus*) covers, as it often does, marshy spots and the banks of brooks, its catkins are very conspicuous among the dark branches; the different species of Poplar also make a pleasing show with their pendant catkins.

In the garden the Red Star Windflower (*Anemone hortensis*) has a very ornamental effect, producing a succession of flowers throughout this month, at a

time when the parterre is but scantily furnished with red or purple flowers. Thus we have now

—— “ A garland for you intertwin’d
With Violets, Hepaticas, Primroses,
And coy Anemone, that ne’er uncloses
Her lips until they’re blown on by the wind.”*

The poets of antiquity ran wild as the winds of March in their fables with respect to the origin of the Anemone from the blood of Adonis, or the tears of Venus for his loss. Nor can we admit that the wind primarily uncloses its flowers, although they appear at a *windy time*. The Pasque or Easter flower (*Anemone pulsatilla*), is a highly interesting and beautiful plant, appearing, as its name implies, about Easter, but chiefly confined to chalky downs in England, though occurring also in several places on the oolite of the Cotteswolds, Gloucestershire. The beautiful locality of a hill side at the Seven Springs, near Bourton-on-the-Water, may be instanced.

* HORACE SMITH’S *Amarynthus*.

EXPLORATORY NOTICES FOR MARCH.

In this month the underwood of forests and coppices is generally felled to a great extent, so that the opportunity should be taken of penetrating woods not before easily accessible, even by the botanical foot. Additional habitats will thus be obtained for many rare plants; for when a grove has extended its sombre dominion over the ground for a number of years, the constant gloom and exclusion of light renders the soil incapable of producing those plants formerly abounding there. Seeds of them, it is true, remain in the deep dungeon of the earth, but each successive year only increases the profundity of their incarceration, by adding a thick damp layer of fallen leaves to the surface of the soil where they lie concealed. At length, the sound of the woodman's axe resounds in the woody glen, the crash of falling branches is heard on all sides, and the beetle and wedges commence their dinning labours.

“ The woodman is loudly calling,
The beetle and wedges he brings ;
For the oak is mark'd for falling
That has stood five hundred springs !
Hark ! a blow, and a dull sound follows ;
A second—he bows his head ;
A third—and the wood's dark hollows
Proclaim that their king is dead !

Then it is that the cleared ground once more exposed to the influences of light and air, reproduces

those plants that had seemingly become extinct for many years, and the botanist, therefore, should carefully explore those woods as the season advances, where such falls of underwood have taken place. It sometimes happens, too, that rare or peculiarly fine specimens of *lichens* may be met with on the trunks or upper branches of felled trees, which of course were not attainable while in their plenitude of strength they lifted up their heads to heaven, and spread their branches high in air to a wide extent around. Cryptogamic botany still claims much attention, while the flowering tribes are as yet far from numerous. The *Scyphophori*, or Cup-Mosses, especially put on a flourishing aspect about this time, and give a *verdigris tint* to old stumps and the bases of moist rocks.

WILD FLOWERS OF APRIL.

CHAP. VII.

AN APRIL MORNING.—PRIMROSES—DOG-VIOLETS, ANEMONIES, &c.—BUTTERBUR AND TOOTHWORT.—CELANDINES, ORCHIS, CUCKOO - FLOWERS. — MIGRATORY BIRDS OF SPRING — FLOWERS OF THE WOOD.—ADORNMENTS OF THE GARDEN.—DENIZENS OF A RUSTIC ONE.

——— “ April comes,
And lightly o’er the living scene,
Scatters her freshest, tenderest green.”

GRAY.

April is a tearful month, full of gleams and showers—like hope struggling with adversity, but with victory in view. It is not redundant in flowers, but scatters with a lavish hand those that shelter under its verdant wing. Tired with the dreary monotonies of Winter, who like some scolding tyrant, still turns round again to repeat his threats when we are chuckling at the turn of his back—so even in April, hailing as we do the bright green she daily spreads upon the meadows and within the woods, in the midst of our pleasures a storm of hail or rain o’erwhelms us in its dripping embraces again—and compels us to look out for shelter, in common with the bee and the too-venturesome butterfly.

But suppose a morning of unclouded brightness, the woods vocal with the thrush and the blackbird, and all nature rejoicing in the genial rays of the sun. With such a "bespeak" from the weather-office, we can "look-out" with some pleasure and alacrity, and gaining a beautiful and secluded locality, notice leisurely the gems of creation before us. We have reached a little valley among the hills, where emerging from rocky woods a brawling streamlet urges its forward course, splashing and murmuring over the round stones in its bed, and then quietly stealing into green meadows beneath a rough veteran of the forest overturned by the winter's storm, that now serves a temporary purpose as a rustic foot-bridge. Looking up into a vista of the wood, the *Primroses* now appear in their greatest abundance and perfection. What picture can be more pleasing at this season than to behold a tribe of little ones all busied in the wood, each with their hands buried in primroses. On a close inspection curious varieties are often found, as the umbelled and liver-coloured Primroses, and occasionally the Oxlip (*P. elatior*), occurs.* From the latter

* From experiments conducted by Mr. H. C. WATSON, Mr. SIDEBOTHAM, and other botanists, the details of which appear in the *Phytologist*, it now appears pretty clear that the Oxlip, as commonly understood, can only be considered an intermediate link between the Primrose and Cowslip, producible by seed from either. Also, that seed from "the Oxlip" will in its turn produce not only oxlips, but cowslips and primroses. I have often observed that when the coppice has been cut down in a wood, that numerous oxlips have appeared there, that must have been seedlings benefiting by the new light thrown upon the spot. There is indeed another plant called the Bardfield Oxlip (*Primula Jacquinii*), found in Essex, which was thought to be truly distinct as a species, but even this has been recently shown to produce *P. vulgaris* from its seeds. Nature, indeed, laughs at man's systematizing efforts, for when the Primrose exhibits scapescent flowers it simulates the Oxlip, and is often so called; while the cowslip luxuriates also into a large-flowered variety. Real hybrids between the Cowslip and Primrose may also exist, as in England they often

the rich deep-coloured *Polyanthuses* of the Garden are derived, and the curious florist would therefore do well to collect any singular varieties of Primrose or Oxlip met with in the woods. In a similar way the singularly-varied blossoms of the favourite tribe of Auriculas have all been derived from a small pale-coloured plant of little beauty found on the Alps. Raw meat applied to the roots of Auriculas is accounted very beneficial to them, and WITHERING suggests that a similar application would increase the size and beauty of Polyanthuses. This is indeed only an extension of the principle of manuring, which affects even wild flowers very remarkably.

Wherever we now look around, the border of the wood is empurpled with violets. But we had better rest contented with the mere *sight* of them, they are "dog-violets"—odourless. Strange that amidst the storms of March the *sweet* violet should present itself; and as bright days arise when we might expect additional odours from the same tribe, a race suddenly appear simulating the beauty of their precursors, but entirely scentless—so that we contemptuously turn away from what without such a prepossession might have been regarded with pleasure and satisfaction. No one likes deception. To make a promise to the eye or ear and break it to the hope, is no uncommon thing in life, but it is not the less disagreeable for that. The delicate *Anemone* (*A. nemorosa*), bending before the wind, inspires far different emotions—it

grow side by side. A writer in the *Gardener's Chronicle*, (1842), says this is not the case on the continent, and that the German Oxlip found throughout Germany, south of the Neckar, and in the pastures of the Tyrol, "seems to be subject to no varieties, and has a peculiar cramp habit of leaf, a rough scape, nodding flowers, swelling calyx, and is scentless."

now whitens o'er the damp copse, closing its petals at sunset, or before rain, and expanding them in the fervid rays of noon. As it is a social plant, the numbers that often decorate the mossy carpet of the woods, present the most pleasing spectacle to the eye of the April wanderer, giving a peculiar feature to the spots where they abound, long before the Cuckoo-flower forms those silver islets that sparkle brightly from afar in the damper meadows.

———"Anemone's weeping flowers,
Dyed in winter's snow and rime,
Constant to their early time,
White the leaf-strewn ground again,
And make each wood a garden glen."*

The petals on their exterior side are often deeply tinged with purple.

A plant with remarkable thyrsus-like purple agglomerated flowers now presents itself often in great abundance (for its habits are social) on the stony barren banks of brooks and rivers. Though well known in summer by its enormous leaves, which are larger than those of any other British plant, it flowers so early and in such low places as to be seldom noticed, though when found by no means inconspicuous, and offering an agreeable aliment to the bees. This is the Butterbur (*Tussilago petasites*), whose leaves not appearing till after the flowers have faded, have several times been used by us as parasols in summer botanical excursions, which their size and the length as well as thickness of their petioles well fits them for. The flowers of the *Hybrid Butterbur*, the fertile plant, which is rarer than the common kind, have a peculiarly elegant aspect.

Another curious plant, only seen at this season, and that but rarely, is the Toothwort (*Lathræa squamaria*). It is entirely confined to sheltered woody spots, almost always entangled among the roots of trees, from which circumstance many botanists have considered it to be parasitical, and it is really so, though difficult to be observed in its parasitical attachment. But the thick-branched roots of the *Lathræa* in general closely surround some portion of the roots of the tree they are connected with, and these roots throw off small tuberous suckers that penetrate into the system of the tree thus curiously preyed upon. Its yellow sickly-looking stalk, clothed only with white tooth-like scales, and its very pale purple flowers, impart to it a singular aspect, and it might easily be passed over at a little distance as a dead or dying flower. I once noticed it in rather a curious locality—the lawn in front of EARL MOUNTNORRIS's mansion at Arely, Staffordshire, on the roots of lime-trees. This shows that the plant might easily be introduced into grounds or gardens, where it would flourish beneath the shelter of most deciduous trees.

One of the characteristics of April are its golden Celandines (*Ranunculus ficaria*). A beam of light flashes from the orb of day as he looks forth from a tempestuous passing cloud, and at once in the moist verdant meadow a thousand golden stars spread out their rays as if at the lifting of an enchanter's wand. Sweetly are they contrasted with the argent stars of "the crimson-tipped daisy;" and here and there, with maculated leaf, uprises the bright purple spike of the Early Purple Orchis (*O. mascula*). In the marsh the splendid Marsh Marigold (*Caltha palustris*),

presents her specious glories, and far and wide are scattered the light purple Cuckoo-flowers (*Cardamine pratensis*)—

“Wan-hued Lady-smocks, that love to spring
Near the swamp margin of some plashy pond;”—

from whence perhaps as we approach, away springs the quacking Mallard, or the sable Coot ruffles the water as she shuffles off in a long extending line.

In moist rocky woods the Golden Saxifrage (*Chrysosplenium oppositifolium*,) now makes a pleasing appearance, the Hawthorn is evidently becoming leafy, the Wild Cherry beautifully displays its innumerable snowy flowers, and perhaps, amidst its branches, the newly-arrived Nightingale charms the ear with her earliest rapturous melody.—

“It is the voice of Spring among the trees.”*

At this springing season the Botanical Explorer, nervously alive to every enjoyment arising not merely from rural sights, but rural sounds also, is often a recipient of the most exquisite pleasure, arising from the melody of birds among the budding branches. The feathered tribes, now intent upon the interesting process of nidification, seek the most retired and romantic solitudes for their nests. Where the dark frowning rock shadows the still darker stream—where the music of running waters gladdens the mazy labyrinth of the trackless forest—where the still pool, with its flags, bulrushes, and islets of water-lily leaves, is skirted by a thicket of hazels and alders, the ground covered with blue-bells or white Ramsons †—there the warblers are sure to resort, and there, too, the Botanist repairs, to seek for his well-remembered

* GRAHAME.

† *Allium ursinum*, LINN.

favourites; while the Thrush from amidst a bush of flowering Sallow, below which her blue-spotted eggs repose, or the Black-cap and Willow-Wren from Aspens or Poplars trembling beside the murmuring rill, or old stony mill-weir, pour out their rich tones and varying cadences with a vigour and delight unmarked at a later period. Now, too, it is that in some calm glorious gleam amidst the secluded woods, just as a passing shower has swept away to sprinkle distant groves and orchards, and the pausing wanderer crouched beneath the tortuous trunk of an old pollard Lime, is watching anxiously the rifted clouds, that the joyous note of the *Cuckoo*, confirming the hoped for brilliant vernal noon, is heard once and again, as if from some viewless form in the sky! It sweeps again upon the ear, and with it comes a host of fond cherished remembrances, that for a moment break the film that grief, care, and perhaps estrangement from once loved friends, has caused slowly but constantly to gather round the heart, as a breeze long blowing in one direction, heaps up on the shore of a lake an accumulated load of fragments, lost to the eye when left to take their own wandering course far over its unruffled surface. And yet who is there from child to decrepid age, who does not pause to imbibe pleasure or pain at the first sound of the Cuckoo as it rises on the ear from the deep woods just showing their primary tint of the palest green?

Hark! I can hear the Cuckoo! what a show
The cherry-trees in wood and orchard make;
Here with their clust'ring blossoms row o'er row,
There drooping lovely o'er the tangled brake;
A shower has fallen, and the branches shake
Sprinkling the rain-drops on our heads below;

The sun breaks forth—Oh ! now's the time to take
The rural ramble, and behold in blow
Vetch with its pendants pink, and Stichwort's braids of snow.

Cuckoo ! a thousand extacies awake,
A thousand recollections at the cry ;
April's green woods, the golden gorsy brake,
Young Speedwell blinking with his azure eye,
And tipt with orange bands, the butterfly !
Cuckoo—Cuckoo !—the echoing hill renews
The swift-returning cadence lost on high :
Lost, 'midst a labyrinth of bloom and dews—

Gone like the fleeting joys that perish as we use.—MS.

How exciting and animating it is at this period, on a fine calm and balmy morning, to wander amidst the mossy stones of some sequestered upland wood adorned with Cherry trees in full blossom, amongst whose branches the Willow Wren is warbling, or the Titlark circling about and descending with reiterated song, while a pattering stream is plunging with repeated splashing and gurgling far down within the gloomy ravine, and at profound depth below, shining and sparkling in the sunbeams, a silver river frets and foams amidst rocky fragments, till beyond their barrier it spreads a chrystal line of brilliance amidst the emerald meadows. Or if even only roaming listlessly by the high road, still as the sunbeams blaze upon a length of hedge where the Blackthorn (*Prunus spinosa*) has encamped, and now puts forth its crowded clusters white as a snow-drift along the side of a hill, it is impossible not to pause and admire their lovely aspect ;—while almost certainly the *Whitethroat* is sure to be seen sporting in and out of the silvery efflorescence, as if anxious to compare its white chin with the sloe-flowers, or feeling that they offered an admirable shelter for its slender and delicate form.

As it flits about, exercising the acutest eye with its swift motions, it pours forth a soft, intermitting, shrill, but not unpleasing melody to delight the observer.

The Ground-Ivy (*Glechoma hederacea*) now flowers plentifully, offering a bright blue devious line to the eye beside many a rustic hedge—hence its vernacular name of “Robin-run-i’-the-hedge.” Some red-cloaked old woman may now be observed in most villages “*carrying off the church*” * in searching for it to make purifying tea.

From our retreat in the wood, various plants belonging to the Vernal Flora now arise to view, and claim botanical attention. Among these the Wood Spurge (*Euphorbia amygdaloides*), is very conspicuous with its red stem, and the Stichwort (*Stellaria graminea*), with its trailing stems and white flowers, is peculiarly characteristic of this period. Two elegant plants appear also at this time in the sheltered glade, and often in juxta-position, that are very ornamental, and when contrasted with each other, present a feature that would charm even a non-poetical eye. One of these is the White Meadow Saxifrage (*Saxifraga granulata*), generally occurring on dry banks, but said to indicate the proximity of water underneath. I remember to have seen a great profusion of this species by the side of the Man of Ross’s Walk, at Ross, on a sandstone rock, overlooking the beauteous valley of the Wye. The other plant to which I allude, as of frequent occurrence in the central counties of England, is the Wood Scorpion-Grass (*Myosotis sylvatica*), whose broad hairy leaves are

* Of course artistically, as a painter would say.

well observable at this time, and whose brilliant azure flowers (curled scorpion-like before expansion) have a most elegant aspect, though not so large as those of the true "Forget-Me-Not," which appear at a later period. When seen *together*, as I have frequently seen these plants, and in considerable plenty, in a little bosky meadowy glen, close to the thickety side of the Laughern Brook, at Henwick, near Worcester, (a loved haunt of many a blissful day in boy-hood,) the effect of their azure and white contrasted flowers is exceedingly charming and lovely.

The Wood-Anemone at its maximum of flowering, now whitens almost every copse or woodland meadow; and scarcely noticeable but by close inspection, the Field Rush (*Luzula campestris*) appears amidst the rising grass pretty generally. On secluded banks or hills amidst coppice wood, the light blue flowers of the Lesser Periwinkle (*Vinca minor*), glistening with dew-drops, present an interesting aspect to the prying eye of the wanderer at this time, and indeed even a warm January day will call forth some of its flowers almost as early as those of the Snowdrop. The glossy evergreen leaves present a singular contrast to the blue flowers, and generally trail far and wide.

In delicacy of aspect surely no vernal flower can exceed the Wood Sorrel (*Oxalis acetosella*), which now appears standing with its "veined flowers," on the sides of romantic ravine-like lanes, amidst stones, and moss, and fern, or not unfrequently its triune leaves (said to have been the original Shamrock of St. Patrick) and white drooping flowers cover over the declining moss-covered trunk of a decrepid tree with a wreath of Nature's own approval. Often, fatigued

with a long ramble over hill and dale have we paused in such a locality to refresh our tongue with the agreeable acid derived from the leaves of this beautiful but retiring plant.

The humbler throng of Flora's train, as the green Mercury, the Dead-nettles, and other *plebii* we must now, at least, leave undescribed—for every day presents some addition to them. Several *Ranunculi* also appear, but in a general glance at vegetable nature, they only claim attention in their perfect culmination, when their golden tints in broad masses or waving lines, give a feature to the landscape with the contrasted hues of other objects. On the banks of coppices, however, the goldilock Crowfoot (*Ranunculus auricomus*), when its flowers are in full perfection, often offers a bright point of attraction to the cursory gaze. But it is remarkable that the petals are mostly abortive, and the little hairy-leaved *Ranunculus parviflorus* seldom exhibits more than three petals.

Lady botanists and florists should be now on the alert looking over their pots, mourning over the destruction of winter, replacing the ravages of its icy hand, and giving their poor stunted *Geraniums*, &c. the benefit of light and air, as well as of a warm shower, should it present itself opportunely. They must also, bonnet on head, "look out" in the garden, remembering that if seeds are to come up they must be first sown, and now is the time to begin, if not begun before. The Chinese Primrose (*Primula sinensis*) looks well at this time, exhibited in full flower in the windows of those who happen to possess it. If fine days (which however in this fickle climate it is impossible to guarantee,) should continue in any

succession, the gardens will be studded with the early vernal flora, the primaveral being hardly yet gone out. Wall-flowers, Anemonies, Early Tulips, Ranunculi, Narcissi, Jonquils, Hepaticas, Gentianellas, and other hardy herbaceous plants, being in full bloom by the middle of the month. In the rustic garden the Crown Imperial (*Fritillaria Imperialis*), and its varieties, now claim a passing attention with its pendant coronals; and what a beautiful appearance is presented on looking WITHIN the flower, and perceiving a lovely milk-white globule in the nectary, at the base of each petal, which retains its place till the flower begins to wither, when it dries up, unless some bird has previously quaffed the delicious draught, leaving only a depression to mark its former position. It is said that if the petals are deprived of this delicate fluid, the anthers and stigma soon wither, and no seed is produced, so that it seems intended to act as sustenance for the embryo progeny contained after fecundation in the seed-vessel. PHILLIPS in his "Flora Historica," calls this specious Persian plant the "Lily of the Turbaned countries, which towers above all the flowers of our vernal parterres, throwing up its tall stem amidst the dwarf flowers of April, like the tall Palm amongst trees, or a pagoda arising out of a Chinese town." He observes further, that "this imperial flower is not without its body-guard, to keep its admirers at a proper distance; for it possesses so strong a scent of the fox, combined with that of garlic, as to ensure its protection from meddling fingers, and its safety from the saloon vase. It is the same property of the plant, we may presume, that defends it from being rifled of its nectareous

juices, which are not only rejected by the bees, but refused by all kinds of insects."

The chequered Fritillary (*Fritillaria meleagris*) now shows its pendulous flowers in some old gardens, or spots that once were gardens; and occasionally the American Cowslip (*Dodecatheon Meadia*,) adorns the border with its gracefully drooping brilliant lilac umbels. The Double Daisy (*Bellis perennis*, var. *plena-flora*), "O commendable flowre," as FATHER CHAUCER hath it, is not to be despised in its aspect at this season as a border plant, nor its favourite curious rustic variety the Proliferous or Hen-and-Chicken Daisy. There is something extremely pleasing in entering within the trim enclosure of some old rustic cottage garden entrusted to the keeping of a prattling hobbling old dame, whose flower roots and stock of bright red Polyanthus have been kept up from old time even beyond *her* memory, till the thick grown-up box border of a century's growth encloses the auriculas and crocusses within their enclosure like so many Egyptian Sarcophagi. Here the old Crown-Imperial is sure to be seen, and many a tuft of *old-man*, *marjoram*, *sage*, *hyssop*, and *lavender*, while a rough rugged time-battered old *Elder* shadows over the ricketty gate at which he stands sentry, or makes a homely harbour at the entrance of the timbered or cracked thatched dwelling.—

"On piled bench, beside the cottage door,
Made up of mud and stones, and sodded o'er;
Where rustic taste at leisure trimly weaves
The rose and straggling woodbine to the eaves,—
And on the crowded spot that pales enclose,
The white and scarlet daisy rears in rows,—

Training the trailing peas in bunches neat,
Perfuming evening with a luscious sweet,—
And sunflowers planted for their gilded show,
That scale the window's lattice ere they blow,
Then sweet to habitants within the sheds,
Peep through the diamond panes their golden heads."

CLARE.

In shrubberies the Laurel (*Cerasus pruno-cerasus*) appears in flower, and at this time bees abound on the laurels, attracted by the sweet liquor exuding from two glands on the under side of the leaf, which is particularly plentiful on a warm day. Plantations of young Larches with their fresh green foliage and young pink cones make one of the most pleasing exhibitions of spring.

WILD FLOWERS OF APRIL.

(CONTINUED.)

CHAP. VIII.

LEAFAGE OF THE TREES.—WILLOW, SYCAMORE, ELM, PEAR.
—FLOWERING ORCHARDS. — THE COWSLIP. — MARSH-
MARIGOLD, BLUEBELL, AND OTHER FLOWERS.—ACCOUNT
OF THE ARUM.—CLOSING STORM.

“ I never see the broad-leaved *Arum* spring
 Stained with spots of jet ; I never see
Those dear delights which April still does bring ;
 But memory’s tongue repeats it all to me.
I view her pictures with an anxious eye ;
 I hear her stories with a pleasing pain :
Youth’s wither’d flowers, alas ! ye make me sigh,
 To think in me ye’ll never bloom again.

CLARE.

Slowly, especially in backward springs, proceeds the leafage of the trees, but it does proceed ; and ere the month has entirely closed, the proverbial tender green of April is pretty generally diffused over the fields and along the hedges. The fine digitated leaves of the Horse-Chesnut, in particular, present, as they expand, an appearance very agreeable to the eye. The young verdure of the larch, too, has now a very enlivening effect in plantations ; here and there a veteran hawthorn will be seen with a scanty verdant mantle about his aged limbs ; and in moist coppices the

elegant Birch is arrayed in the most delicate and unsullied frondage. Where birches are numerous in a wood, their aspect in early spring as the young leaves have just expanded, and violets strew the ground below, is very exciting to the observer, while some sound of vernal movement is sure to break upon the ear. In fact one genial April shower has often such a magical effect, that woods and groves will, often in a single day, exchange their sad hibernal aspect for the smiling and exciting look that at once calls us bounding away to the green woods.

The Beech is a tree that exhibits its delicate young leaves before the close of April, though only scattered trees appear to delight the eye, except where the hills of Gloucestershire and Buckinghamshire rejoice in their extensive beechen groves, splendid in their deep shade and solemn exclusiveness. A pleasing writer has thus alluded to the foliation of the beech woods of Gloucestershire, which is of course applicable to other districts where the beech occurs. "Virgil has elegantly given to the vernal season the epithet of *blushing*, because the shoots and buds of trees assume a ruddy appearance previous to throwing out their leaves. This beautiful effect is very obvious in the deep beech woods of Gloucestershire. Unenlivened by that silver rind and those multifarious tints that diversify the stem and branches of the birch, they present a dreary appearance through the winter months. But in April a slight change of hue becomes perceptible. A casual observer might ascribe it to a drier air, a clearer atmosphere, or to those transient gleams of sunshine which seem to light up the face of nature with a smile. But the effect arises

from that secret renovation which the aged fathers of the forest and their sapling sons are now experiencing. The swelling buds are first brown, then bronze, then of a reddish hue, and thus they continue till a light green bough is seen to wave, as if in triumph, from some warm sheltered nook. This is a signal for a general foliation; and he who retires in the evening, casting a look at his beloved woods, rather wishing than expecting that another week will cover them with leaves, often rejoices the next morning to observe that the whole forest has burst into greenness and luxuriance.”*

The Sycamore very early puts forth its fine broad frondage, a beautiful object wherever it stands by the roadside and old farm-house; the weeping Willow (*Salix Babylonica*), is now also arrayed in its pallid young foliage, and the Hazel and common white Willow have their leaves just expanded; the Elm and Pear are beginning to be partially green, but the other forest trees will still remain in a denuded state much longer.

April 18th, according to Forster, has been designated *Ulmifrondes*, or Elm’s-tide, on account of the Elm generally appearing in leaf on this day; but this will only happen in central England in early seasons. The Elm (*Ulmus campestris*) flowers early in March, long before the foliage appears, as does the Wytch-Hazel (*Ulmus montana*), a true British denizen, often of distorted aspect, whose hop-like clusters of capsules begin to appear very conspicuous. Where a deep winding lane is fringed on either side with pollarded ashes or old monstrous-headed wytch-hazels, a solemn yet soothing effect is often produced at this transition

* Annals of my Village, a Calendar of Nature, &c.

season, when a high wind lashes the young smooth shoots of the past year against each other high in air, with a shrill, straining, yet not unmusical sound ; combined with the roaring of the wind among the branches, while all is calm and still below. So the thoughtful and contemplative naturalist, treads his lonely quiet path, below the noise and convulsions of the perturbed world around him, happy in his woodland shade.

The lover of nature, now looking out every morning for fresh objects of attraction, cannot fail to be delighted while he is searching among groves and streams, or toiling up dark stony ravines among the hills, with the successive arrival of the various migratory birds, which always takes place at this cool leafing time. A south-west wind is very favourable to their appearance, and they will thus often be seen in numbers among the trees on the banks of a stream where one was not visible the day before. Thus in certain favourite haunted localities, among violets and primroses, where a coppice is divided by a gurgling stream that in some places buries itself among black lichenized pebbles, with its sides faced and tiled with the glaucous-green *Marchantia*, on a bright April morning the notes of the Nightingale, Titlark, Black-cap, and Willow-Wren, may all be heard in delightful unison, while the pauses of the concert are filled up by the loud *cheer* of the song Thrush, or the echoing flourish of the Woodpecker. Such a copse tempting the early foot of contemplation it has been often my delight to visit when the purple orchis with spotted leaf was springing from the dewy pasture, and the humble Robin-run-i'-the-hedge was opening its blue

eyes on the morning co-incident with the appearance of the feathered warblers. Nor less do I remember another dingle thick embowered with wood, where springs trickled from amidst curling ferns, and meeting rills dashed their brown waters over stony slabs of high polish to foam and sputter in the deepening ravine, where far below lonely pools enamoured the blue kingfisher. There have I lingered after birds and flowers like a "vagabond flag"—as these lines part of a longer effusion may show.

Deep in the dangling foliage I beheld
 A sportive Willow-Wren as swift he flew;
 Down the rough glen by nature's love impell'd
 I follow'd, but he vanish'd from my view;
 Yet it was lovely in the morning dew
 To see the Bilberry blossoms, and to hear
 From the young verdant foliage, the new
 Song of the Blackcap burst upon the ear
 Midst green romantic dells and splashing waters near.

Here I could linger in the woody glen
 Beneath the beech or pensile birch-tree laid,
 And mark the flowers,—the modest Woodroof when
 Her milk-white blossoms scent the mossy shade,
 And Alchemilla's green ones scarce survey'd,
 Though curious with her spreading leafy fan,
 With Woodrush's tall tapering silky blade,
 Fair Vicia's purple clusters in the van,
 And Strawberry's bunches white, and tall Alisma's wan.

Besides the plants here enumerated, the wild yellow Tulip (*Tulipa sylvestris*), is occasionally met with beautifying dry banks or old quarries, yet too seldom flowering even in localities where it may have been noticed for years, the long narrow glazed leaves only appearing to view. In rough hilly spots, many a lofty spreading Ash tree yet stands leafless, though bearing

dark clusters on its branches, which are the naked organs of its fructification. The wild woodbine has now fully expanded its leaves, and festoons many a hazel with a rich verdant wreath, or dangles from the spreading head of some old pollard willow.

By the close of the month, on the average of years, the Pear-trees in the orchards of Herefordshire, Worcestershire, and Gloucestershire, present a most beautiful spectacle; and after a light shower, as the sun again breaks through the parting clouds, and picturesque white cumuli appear dotting the blue heavens, scarcely any thing can be more exciting than to ramble through a series of pear orchards, where the landscape is backed by the mural Malvern hills, stretched in long dark boldly-swelling steeps, the trees white with a profusion of bloom, while the humble-bee booms through the air, the *Blackcap* warbles amidst the branches, the *Nightingale* chirrups among the pollard oaks of the coppice, and the "wandering voice" of the *Cuckoo*, comes floating at intervals up the vale now redolent of fragrance. A pear-orchard in exuberant flower is a vegetable spectacle not easily matched, for the bending branches of the Pear-tree give a gracefulness to its outline far exceeding the stiff formality of the Apple-tree, and oppressed with a multitudinous crowd of blossoms its branches almost trail the ground, a bending load of beauty that seems by moonlight a mass of silvery ingots. The "Barland Orchard," between Worcester and Malvern, containing more than seventy trees lofty as oaks, cannot be seen by the traveller without admiration, and is the finest in the kingdom, though the trees are now getting old.

The Cowslip (*Primula veris*), one of the most beautiful of British plants, now appears dotting the moist meadows, especially upon clayey soil or the *lias* formation; and curiously enough the *lias* may often be traced for miles at this season by the abundant crop of cowslips on its surface, while the adjacent red marl meadows have scarcely any.* The cowslip has always been a general favourite, and surely a *field of cowslips* in the vernal season is an object on which the eye and the memory rests delighted; for who is there that has not tossed about the cowslip-ball with sportive glee, or brought home in triumph the first expanded one that could be discerned in the field, or rising beauteous in the shade of the thicket. A lady may well be credited the recorder of a joyful maiden's feelings, as in the following lines—

“ But oh, what rapture Mary's eyes would speak,
Through her dark hair how rosy glow'd ber cheek,
If in her playful search she saw appear
The *first-blown cowslip* of the opening year.”

MRS. SHERIDAN.

And so to many is the *first sight* and scent of the floral queen of the spring, for visions of childhood will then rise again in the mind, for a transient moment, brilliant as its golden bells when they droop lovely in the balmy freshness of the morning. Then, we can hardly fail to call to mind the beautiful simile of SHAKESPEARE's relative to IMOGEN!—

————— “ On her left breast
A mole, cinque-spotted, *like the crimson drops*
I' the *bottom of a Cowslip*.”

And recur also to the “*Midsummer Night's Dream*,”

* The Cowslip is scarcely found in Devonshire, where there is a considerable tract of red marl. But the observation in the text applies to the borders of Worcestershire and Gloucestershire.

where these "crimson drops" are denominated "rubies, fairies' favours." The drooping corolla of the cowslip, its golden bells hanging from their very pale green calyces, is a peculiar feature that the poets have not forgotten to allude to; CLARE calls them

"Bowling odorers of the gale,"

and HURDIS, in his "*Village Curate*," pictures

"The love-sick Cowslip, that the head *inclines*
To hide a bleeding heart."

The Cowslip varies much in the bright or pale tint of its flowers, and very rarely red ones are found. The name probably originated from the perfume of the flowers having been thought to resemble the sweet scent of the breath of cows. Its odour, though weak, is very agreeable, and the wine made from the blossoms is of the sweetest and most harmless in existence—scarcely, indeed, deserving to appear even in the *Index expurgatorius* of a tee-totaller! In some districts the children of the peasantry sell the flowers, divested of the ovaria, to some advantage to themselves to the manufacturers of British wines.

Damp meadows at this time present a brilliant appearance with the specious flowers of the Marsh Marigold, or rather *Ranunculus* (*Caltha palustris*), whose expanded petals now make a fine show, being near their height of beauty. A luxuriant plant in a sunny place will often flower in March, and Mr. T. FORSTER remarks it as "in flower in the end of March in the marshes about Lea Bridge, in Essex." In the midland counties this fine plant of the marsh and the brook often presents its splendid flowers in full blow by the 10th of April, and by the middle of the month it is in perfection, edging willowy copses

with a belt of gold. In some rural districts the inelegant name of Horse-blob is applied to it, and so the Northamptonshire peasant bard remarks—

“ —’neath the shelving bank’s retreat
The Horse-blob swells its golden ball.”

By degrees, as the pleasant green of April spreads over the country, flowers, albeit homely ones, get into the ascendant and diversify the verdure;—here and there a Dandelion, in a snug warm birth, spreads out the *star of his order*; and on the margin of some mossy pool, just within the copse where the thrush is now sitting on her blue-speckled eggs, appears the bitter Cuckoo-flower (*Cardamine amara*), distinguished from its more common congener by the purple colour of its stamens and the nauseously bitter taste of its foliage. In companionship with this, though almost in the water itself, appear the two allied golden Saxifrages (*Chrysosplenium oppositifolium et alternifolium*), the latter, however, rather the finer and the rarer of the two. Trailing on the ground within the copse appears the Bugle (*Ajuga reptans*), its rising heads of dull blue flowers very apparent in the shade.

To the wanderer who at this renovating season penetrates in the early morning into the dewy copse, and there pauses, listening to the sounds that rise around him, there is a soothing charm that comes redolent of peace to the chastened spirit, and for a time obliterates the memory of many a care. How simply do they judge, who think the prying botanist, has, in his morning’s ramble, merely gathered some humble plant on which to employ his systematic or speculative powers. True, he bears some fairy blossom from its hidden retreat, and so far has extended

his knowledge ; but he has done more than this—he has communed with his own spirit amidst rocks and clouds ; and above the hoarse-voiced waving of the trees of the wood, he has heard a voice whose solemn intonations follow his recollections into the common walks of life. The secluded forest has now become the *adytum* of his secret thoughts, where he flies like a wearied bird to its roost ; and disappointment and woe only add an increase to the sacred feelings with which he regards it.

Towards the close of April the spring Blue-bell (*Scilla* or *Agraphis nutans*), opens its nodding flowers—FORSTER intimates on ST. GEORGE'S DAY, with which it appears the blue-bell of spring is associated ; but the hue of heaven is not actually profusely transferred to earth by this pretty plant till the brighter days of May appear. Some botanists refer it to the genus *Hyacinthus*, with which its habit more accords than with *Scilla*, according to Dr. Hooker, but it has nothing to do with the *Hyacinth* of antiquity ; and hence LINNÆUS distinguished it by the term, "*non-scriptus*," as having no inscribed characters on its petals. But if it fails in this respect, its beauty on the forest lawn or upland meadow, spangled with the pure dews of the morning, excites the most rapturous delights, especially to any one deprived for a time of so fair a spectacle. The untiring naturalist indeed with all the fancy of a poet, can always find supreme delight when on a vernal ramble—

“Tracking some channel on its journey wild,
Where dripping blue-bells on its border weep :
O what a lovely scene to nature's child !”

And so have we plunged into the copses bordering

some stream, whining like a child among the pebbles of its native hills; and there leaping from bank to bank amidst a maze of long-stalked blue-bells and broad-leaved Ramsons, with rampant thickets bursting into verdure about our steps, have wandered with the wandering stream, excited into happiness and forgetful of all but the peaceful influences of the moment.

CLARE has associated the Arum or "Cuckoo-pint" (*Arum maculatum*), with this month.

"Hooded Arum early sprouting up;" and its leaves, often spotted with black, are among the earliest to catch the eye, while its curious inflorescence surmounted by a purple spadix, and enclosed within a large green hood, like a friar's cowl, has been always the object of popular notice. This *purple club* with its floral appendages bear various familiar names, as "cows and calves," "lords and ladies," &c., as thus noticed by the Northamptonshire poet—the fully matured dark purpled spadices being bulls or lords, the paler ones cows or ladies, and immature ones calves.

"How sweet it us'd to be, when April first
Unclosed the Arum leaves, and into view
Its ear-like spindling flowers their cases burst,
Betinged with yellowish white or lushy hue;
Ah, how delighted, humming on the time
Some nameless song or tale, I sought the flowers;
Some rushy dyke to jump, or bank to climb
Ere I obtain'd them; while from hasty showers
Oft under trees we nestled in a ring,
Culling our 'lords and ladies.'—O ye hours."

The Arum appears to have been mentioned by SHAKSPEARE, as "long-purples," though it is generally contended that the immortal bard had the purple Orchis (*O. mascula*), in his view. But the name of

"dead-men's fingers," by which the "cold maids" designated the flowers of the plant, might seem to decide the question in favour of the *Arum*, as the flowers of the *Orchis* would scarcely suggest such an idea; though the flabby club of the *Arum* does present such an analogy. In fact, curiously enough, we have actually in the present day, heard "cold" country damsels, who probably had never heard of the existence of Shakspeare, call the *Arum* by this very name of "dead men's fingers."* The cluster of scarlet berries, which ripens in the autumn after the spadix is totally withered, is not by common observers generally considered to have sprung from those minute bead-like *ovaria* below the pollen-bearing organs, that in the early spring, pale, wan, and delicate, charmed the eye in contrast with the deep purple club, at whose base they are so symmetrically ranged. In unclouded sunshine a fetid scent sometimes arises from the hood or spatha of the *arum*, not observable under other circumstances.

But we have wandered through the floral mazes of April amidst inspiring sunny gleams, and we quit them

* It is however rather curious, that both to the *Arum* and the *Orchis*, liberal shepherds give a grosser name, as SHAKSPEARE says, and both are abundantly conspicuous in the spring. In an old English MS. which was published as a curiosity in the *Archæologia*, the *Arum* is made to figure as an herb of power under the name of "Dragance" and "Nedderistonge," and it is there asserted that if the hands are well washed in its juice—

"Yu schalt Nedderis [Adders] withoutyn peryle
Gaderyn and handelyn hem at thi wylle."

Under the influence of a hot sun, a very fetid snake-like scent rises from the spatha of the *Arum*. Its fine shining leaves sometimes thickly spotted with black, emerge from the ground with the first mild days of February, when the rustic term "Wake-Robin" seems not inappropriate, but the foliage withers away before the sun of June, so that the cluster of red fruit stands at last lonely and desolate, revealed beneath every hedge, a prey to every passer by,

in a storm—such a one as must occasionally occur to every botanical explorer, and which has, perhaps too often, exploded upon ourselves when unprepared for it. The hills lour, the sudden blast whirls the pear-tree blossoms far and wide, dense clouds obscure the sun, and deep impervious gloom settles upon all things. And now the hail impetuously rattles upon the heads of the flying rustics ; cattle run beneath the old pollard oaks ; sheep in a compact body take the shelter of an overhanging thorny hedge ; birds scream, and are lost to view amidst the twisted branches of the dark extending wood. But whither shall *we* fly, for a furious and overwhelming snow-storm drives along, and we are surprised upon the bare unsheltered hills!—But the clouds fly swifter than the vicissitudes of life,—far on the storm pursues its mad career, and resplendent peaked silvery *cirrho-cumuli* rise majestically above the black rain-clouds on the western horizon.

EXPLORATORY NOTICES FOR APRIL.

The Botanical Explorer commences his labours in earnest this month, and hence, perhaps, it may be advantageous to the neophyte, to give him an idea of the apparatus he should be furnished with. A tin box, or vasculum, has been generally recommended for putting plants into when gathered, but though this is convenient enough for *Mosses* and *Fungi*, *Jungermanniæ*, *Marchantiæ*, or any succulent plants, it is not well adapted for the preservation of delicate flowers with others of a coarser nature, especially if *any number* be collected, for the whole must then be pressed and jammed together in one heterogeneous mass. A large vasculum may indeed be obtained, but the appearance of this thrown over the shoulder is rather inelegant, and subjects the wearer to the supposition of his being a dealer in lolipops! I have therefore long laid the tin box aside, with the exception above adverted to, and in its stead I recommend a folio or quarto blank book of cartridge, brown, or thick cap paper, to be carried. This should have interspersed within it a number of what bookbinders term "guards," which will allow of many plants being placed within the book without increasing its thickness. Its cover may be of green canvass, roan of any colour, or simply half-bound, according to individual taste. For mountain excursions I have found an external cover of polished black leather very useful in case of rainy weather. It

may be slung over the shoulder with a strap like a fishing basket or artist's portfolio, and makes a better turn out, and is in reality more convenient than the tin vasculum. Plants at once carefully placed between the leaves of the Collecting Book, may be preserved for examination several days without detriment, though it will be advisable of course as soon as convenient to shift them into fresh papers, and then *dry the leaves of the book*.

As it is expedient in many instances to get up plants by their roots, which are often a considerable depth in hard gravelly soil or stiff clay, a large case knife should be carried for this purpose; or what is better still, a *Digger*, or curved Trowel should be obtained. This should be ordered from some cutler's, and consists of a broad stiff blade six or eight inches in length, fastened into a strong handle, and fitted with a stout leather sheath. Or the steel may be in a tubular shape, with a handle, like a bricklayer's trowel, and fitted into a case. A blade or hook that would screw to the end of a walking-stick or umbrella, is a good aid for obtaining aquatic plants.

A smaller pocket-book, or old pamphlet, which could go into the breast pocket, is very convenient for the more delicate plants; and this, with a magnifying glass hung round the neck, and some Compendium of the British Flora in the pocket, will complete the equipment absolutely necessary for the practical collector. A sporting jacket of a dark hue, is perhaps the best external covering for the traversing of bogs and thickets; and this should have besides its external pockets, one or two within side, sufficiently large to contain the collecting book. For a long excursion

a pocket pistol is not to be forgotten. For protection against a sudden storm when on a tour, I have found one of the cloaks called a toga, or a wrapper of rough cloth an excellent protection; and with such a one about me I endured comparatively scatheless, one of the heaviest down-pours dashed off from Snowdon in one of his very surliest fits.

WILD FLOWERS OF MAY.

CHAP. IX.

SEASONAL VARIATIONS IN THE FLOWERING OF BRITISH PLANTS.—SIX FLOWERING PERIODS DESCRIBED IN DETAIL, THE PRIMAVERAL, VERNAL, SOLSTITIAL, ÆSTIVAL, AUTUMNAL, AND HIBERNAL.—FLORAL SYMPATHIES OF POETS AND BOTANISTS.

“Let mother Earth now deck’d with flowers be seen,
And sweet breath’d Zephyrs curl the meadows green.”

DRUMMOND OF HAWTHORNDEN.

“Methought fresh May before my bed upstode,
In weed depaint of many diverse hue,
Sober, benign, and full of mansuetude,
In bright attire of flouris forged new,
Heavenly of colour, white, red, brown, and blue,
Balmy in dew, and gilt with Phœbus bemys.”

CHAUCER.

Before gathering “May Flowers,” it will be convenient to subdivide the garland of the year into characteristic *FLORALIAS*, or *FLORAL REIGNS*, which may perhaps be made more intelligible by the peculiar flowers comprised within them, than the mere artificial divisions of the months. They will also be more natural, as these *Floralias* will of course remain the same whether the seasons be earlier or later; for even in successive years there is often a very considerable difference in the *dates of flowering* of many plants, according to mildness or severity of the weather. Thus in the stormy and ungenial springs of 1837 and 1839,

the Blackthorn (*Prunus spinosa*), which in average seasons usually blooms about the *middle* of April, was not in flower until May 1st, although in the hot spring of 1840, I noticed it in flower at Stanton in Worcestershire, on April 1st, as it was also at Worcester in the very warm spring of 1848.

The Hawthorn (*Cratægus oxyacantha*), which is in many springs at least *partially* in flower on May-day, only commenced flowering to my observation in 1837 on May 26th, for in a communication I made in that year to "*The Naturalist*,"* I penned this remark:—"May 26. Noticed a Hawthorn-bush in flower for *the first time this year*, but in a ride of thirty miles it was *the only one* so circumstanced." The Hawthorn was almost equally late in coming into flower in 1839, while in 1840 it was observed in flower in Worcestershire on April 25th, and on the first of May was copiously in blossom. The Pear Orchards ought in genial seasons to be generally in flower in the second week in April, continuing till the middle of May; but in 1837, the Pear-trees were not fully in flower until May 15th, although in 1840 their flowering was *over* by the 1st of May, when the Apple-trees, generally a fortnight later, were in their prime perfection. The Horse Chesnut usually displays its splendid thyrsi of flowers the latter end of April and beginning of May, but in 1837 this tree only came into flower on May 25th; yet, in 1848, it flowered at Worcester on May 8th.†

* A Periodical, then edited by NEVILLE WOOD, Esq., but since discontinued.

† In the *Phytologist* for 1848, will be found a paper, by myself, on the "Acceleration in the flowering of Plants and frondescence of Trees," incident to the high temperature of the spring of that year.

Thus temperature and the occurrence or non-occurrence of bitter frosts and ungenial storms in April and May, make a great difference in the aspect of the *Flora Spectabilis*, for while in 1839, the bitter frosts of April and May so cut up the vernal flowers, that Lilacs and Laburnums scarcely exhibited expanded blossoms at all, and while in 1837 they only displayed their beauty in the middle of June; on May 6th, 1840, both shone in the shrubberies with the utmost gorgeous effulgence and profusion. I find the following observation in my Journal for 1837, relative to the retardation in the leafage of trees, and their foliation was almost equally backward in 1839:—"May 13. Alder not in leaf except very partially; Ash, no signs of opening foliage apparent; Beech, the leaves only fully expanded this day; Birch, young leaves just open; Elm, leaves expanding, but scarcely open, general aspect denuded; Hawthorn, the hedges not yet entirely green, and no sign of blossom anywhere; Hazel, not in leaf except here and there; Horse-Chestnut, the foliage fully out, but not any flowers; Lime, only just opening; Maple, buds as yet only apparent; Pear, leaves only partially expanded; Sycamore, merely in young leaf; Willow, young foliage just apparent only; Service (*Pyrus torminalis*), entirely leafless; Oak, totally bare."—The latter tree was quite *devoid of foliage* as well as the Ash on May 29, 1839, and yet in 1840, so hot and cloudless was the weather in April, the thermometer rising in the shade at three p.m. to 72° (at Forthampton, Gloucestershire), that the leafage of the trees was nearly *accomplished in a single week*, from April 18th to April 25th, on which latter day I noticed even the Oak in young foliage;

and the Ash, seldom in full leaf until June, exhibited expanded foliage in many instances on May 1st. Both the Ash and the false Acacia (*Robinia-pseud-acacia*), had copious leafage on May 5th. Thus in this remarkably forward year the *frondescence of trees*, which in general begins with the aquatic kinds, was almost reversed ; at any rate the Willows, Poplars, and Alders, put forth their leaves in company with the Lime, Beech, and Oak. So in the suddenly warm spring of 1848, all the trees were in full leaf by May 10th, except the Ash, whose foliage, however, commenced expanding at that date.

The Elder (*Sambucus nigra*), is very characteristic of our transient summer, which can never be said to be established till the perfume of its sulphur umbels loads the evening air, and this frequently happens the last week in May ; but in 1839, the flowers were not even expanded before June 17th. Yet in 1848 the Elder commenced flowering on May 16th, and was generally in flower by the 24th of that month.

In this way the flowering of plants and trees may be expected to vary in their *precise* times ; and the noting of this, and its connection with the appearance of the migratory birds, will always be a source of amusement, instruction, and enjoyment, to the observant naturalist.

Mr. F. FORSTER, in his "*Perennial Calendar*," and other works relative to the periodical flowering of plants, has indicated *six* distinct seasonal periods, to each of which respectively a certain number of the species indigenous to or naturalized in Britain belong. These I shall now proceed to enumerate, and though it must be expected that many plants will appear in more than one division, or connect one with another,

yet on the whole I think it advantageous to adopt FORSTER's nomenclature, premising, that in his view each period has its *culmination*, or "maximum of flowering beauty," when of course its aspect will best appear in contrast with the culmination of its neighbour. "As individual plants may be noted as flowering, culminating, and deflowering, according as they first open, arrive at full maturity, and fade, so the same may be said of the aggregate of flowers of each particular season, technically termed Floras. And this is the best method we can adopt for illustrating the face of nature at each of the six principal periods of the revolving year."*

The periods thus characterized are as follow, but to render the subject more intelligible, I have somewhat enlarged and further illustrated his minor details. The various indications of the approach of the seasons, constitute, as he observes, a subject of considerable interest; and they are to be deduced principally from the *periodical return of certain natural phenomena*, such as the re-appearance of the birds of passage, the awakening of insects and other hybernators from their long inaction, the pairing of animals, nidification of the feathered tribes, the flowering of plants, and the ripening of fruits. Let us now examine the divisions adverted to.

- I. THE PRIMAVERAL REIGN.
- II. THE VERNAL.
- III. THE SOLSTITIAL.
- IV. THE ÆSTIVAL.
- V. THE AUTUMNAL.
- VI. THE HIBERNAL.

* FORSTER's *Perennial Calendar*, 8vo. p. 141.

The *Primaveral* Floralia or Floral Reign, may be said to commence with the first breaking up of the frost before or in the early part of February. It comprehends the "first pale blossom of the year," the Snowdrop, the Crocus, the argent though humble and minute *Draba Verna*, the Golden Saxifrages and some other cruciferous flowers, the specious though afterwards rank and dissightly Coltsfoot, the Anemonies—

"From the soft wing of vernal breezes shed;"

the ever-exciting Violets and Primroses on their well-remembered banks, and all the tribe of Daffodils, Narcissi, Hyacinths, and many others. In the woods the golden catkins of the Sallow, as well as those of the Hazel, are predominant and characteristic.

The *Vernal* Floralia may be considered as introduced by the Lady-smock, (*Cardamine pratensis*), which in warm spots is in flower by Lady-day, March 25th, though its culmination does not take place before a month afterwards. Now it is that

"Cuckoo-buds of yellow hue

Do paint the meadows with delight,"

these "cuckoo-buds," so called when unopened, becoming when the sun breaks forth at noon the resplendent golden stars of the Pilewort (*Ficaria verna*); in damp oozy spots the Marsh Marigold (*Caltha palustris*), is seen from afar; and Dandelions become very numerous, marking the latter period of this floralia with their conspicuous white clocks. Now "the love-sick Cowslip that the head inclines," appears beautifying the pastures, and on the margin of woods the early Purple Orchis (*O. mascula*), becomes a brilliant object of attraction. Towards the close of April, or about St. George's Day, April 23rd, the carpet of

the woodlands assumes a fresh aspect with the brilliant blue of the wild Hyacinth or English Blue-bell (*Agraphis nutans*); the golden Broom beautifies the thickets, the Mountain Ash the woods; many *Ranunculi* spangle particular meadows, and in others a profusion of the Meadow Orchis, (*O. morio*), has a very beautiful effect. In the garden the Tulip is now the "Queen of Beauty," while the shrubberies around are fragrant with the Lilac or resplendent with the Laburnum. This is the favourite season with the poets, the flowering thickets being now vocal with the songs of all the migratory warblers.

—————"I hail the time of Flowers,
When Heaven is fill'd with music sweet
Of birds among the bowers."*

The Germander-Speedwell, rivalling with its azure hue the brilliant Blue-bell, is another attendant upon the Vernal floral reign, as is the odorous Wall-flower, the Columbine, the Globe-flower (*Trollius Europæus*), the Peonies, and the blue Garden Iris (*I. Germanica*.) The culmination of the Vernal Floralia is marked by the flowering of the Hawthorn, whose stainless clusters breathe such fragrance on the balmy evenings of this period; and where dwarf decrepid individuals cover the declivities of hills like aged pilgrims with flowing silver locks, the ground seems in the dubious twilight as if strewed with newly-fallen snow.

The approach of the *Solstitial* Floral Reign is indicated by the appearance of the great White Midsummer Daisy (*Chrysanthemum leucanthemum*), and may be said to be actually apparent when the common Yellow Flag (*Iris Pseudacorus*), gilds the marshes;

Poppies then flame in the gardens, and the *Lychnis flos-cuculi* and Yellow Rattle diversify the meadows. Delicious fragrance, too, fills the air from the masses of Honeysuckle Clover widely dispersed in the fields.

“Now flames the grass with vegetable gold
Where yellow Buttercups their flowers unfold.”

The grasses have attained their full perfection, and the aspect of the woods and thickets covered with frondage and intertwined with Roses and Honeysuckles, diffusing the most delicious scents, is incomparable.

Pinks, Carnations, Sweet Williams, and Lilies, now display the utmost pomp of confirmed summer in the garden, while the brilliant St. John's Worts and golden Cistus (*C. helianthemum*), accurately mark the solstitial time on exposed banks and woods open to the sun. The Foxglove becomes a noble ornament to sandy lanes; rocks and roofs are overlaid with the gold of the Stone crops (*Sedum*), and the Mallows, Chamomiles, and Bindweeds, follow with their white or purple bells. *Verbascums* are also conspicuous with their tall wand-like stems thick clustered with yellow flowers. The Solstitial Floralia lasts from the beginning of June to July 15th. This period in the midland and southern counties of England includes the Hay-harvest, which, says STILLINGFLEET, in his “*Calendar of Flora*,” begins with the flowering of the Lime, Clover being out of blow, and Yellow-Rattle, or Coxcomb (*Rhinanthus crista-galli*), shedding its seeds.*

* It is, however, said in Worcestershire, that the grass is fit for cutting when the seeds of the yellow-rattle can be shaken in their capsules with a rattling sound.

“ Now comes July, and with his fervid noon
Unsinews labour.”

Hence the *Æstival* Floralia, or advanced Summer Floral reign presents itself, characterized by the agrarian Cockle (*Agrostemma Githago*), and golden *Chrysanthemum* among the corn; the Hawkweeds and Bell-flowers on rocks and walls; and the odorous Meadow-sweet (*Spiræa ulmaria*), and purple Loose-trife (*Lythra salicaria*), as well as the various Willow-herbs beside rills and banks of rivers. The nodding Plume thistle (*Carduus nutans*), and others of the tribe present their specious purple flowers to view, characteristic of hot days and dusty roads—but like the cuckoo in June—“ seen, not regarded.”

Wild heaths, wastes, and commons, so black and horrific amidst the storms of winter, begin to assume a robe of exquisite beauty with the innumerable flowers of the *Calluna vulgaris*, and the still more delicate and beautiful hues of the blossoms of the *Ericæ* (Heaths), and *Andromeda polifolia*;—some of the heaths long continuing and enlivening the Autumnal Floralia. In the garden the lofty Holyhocks (*Althæa*), the Sunflowers, African Marygolds, China Asters, and numerous other flowers, present an aspect of regal magnificence. In rocky spots, perhaps, the flowering of the Clematis or Virgin's Bower, (*C. vitalba*), is the most decisive indication that the *Æstival* Flora has attained its culmination, while the universal substitution of the flowers of the Bramble for those of the Rose proclaims the same event. The berries of the Mountain Ash, Hawthorn, and Guelder Rose, now become evidently *coloured*, and add a pleasing tint to the foliage of the hedge and shrubbery, though

intimating that already summer verges to decay. In hilly spots the autumnal flowering Gorse blazes refulgent in fine contrast with the fronds of the brake or Eagle fern, especially when the latter fades into a rusty hue, for the gorse continues in flower far into autumn. On the hills and rocks of Wales it combines splendidly with the heaths and grey cairns.

The *Autumnal* Floral Reign begins to present itself as soon as the Meadow Saffron (*Colchicum autumnale*), shows its naked pale purple flowers conspicuously in the meadows, which is generally the last week in August. The autumnal Dandelion (*Apargia autumnalis*), then throws a faint tinge of gold along the pastures; and damp spots in and about woods are empurpled with the culmination of the Devils-bit Scabious (*Scabiosa succisa*). The pretty little pink-flowered Centaury is in perfection at this time, and on the coast its dwarf varieties are particularly conspicuous. On moist commons or the sandy sea-shore the scented Triple Ladies' Traces (*Neottia spiralis*), now presents itself sometimes in great abundance, and the Sea Starwort (*Aster Tripolium*), exhibits its purple rays along the muddy beaches of rivers within reach of the tide. In the garden the Michaelmas Daisy is a very characteristic feature of this floral period, which closes with the flowering of the sombre Ivy, on whose green umbels numerous insects alight to derive the last sustenance the dying year has in reserve for them. The sweets of floral life are indeed fast waning away.

If the fields have not been entirely burnt up by the heats of summer, Mushrooms and numerous other *Fungi* will be daily spangling the green fields often in

very conspicuous rings, while within the woods crowds of them of almost every colour will be visible upon the ground. The orchards show their rosy-cheeked products in splendid perfection at this time, though autumnal gales arising whirl thousands of leaves about in the air; and the foliage of all deciduous trees fading into parti-coloured brilliance, gives an aspect of singular though melancholy magnificence to the face of nature. The ground now becomes every where crisp and leaf-strown, berries of numerous kinds, especially the Hawthorn and Mountain-Ash, glisten in the dews of morning, and every brambly hedge is loaded with clustering Blackberries. A colder temperature at length becomes very evident, and thick fogs prevailing in the early part of the day involve all things in their reeking folds.

From the end of November to the beginning of February is the *Hibernal* Period, scarcely however at all connected with the *Flora conspicua*. The realm of flowers, sacked and desolated by the autumnal gales, lies in a state of ruin and desecration, scarcely any thing but withered stalks appear in the gardens; and as FORSTER remarks in his "*Indications of the Seasons*,"—"almost all nature seems at length to slumber, and till the Holly and Ivy berries of Christmas enliven our houses, every thing seems sombre and uninviting." Yet, abroad, all is not barren to the botanist, for many curious species of *Pezizæ*, *Spheriæ*, *Thelephoræ*, *Tremellinæ*, &c. luxuriate in the damp atmosphere, and even scent it very agreeably. *Mosses* and *Lichens* are attaining their utmost perfection and luxuriance with every brumal storm—roofs, rocks, and precipices, become green and beautiful with them, and the moun-

tain turf displays a host of *Jungermannia*, whose black globular-headed *thecæ* glisten upon pellucid stalks amidst their matted bright green foliage. The banks of many quiet gliding brooks remain green through the winter with the close-tiled fronds of the wide-spreading *Marchantia*, which at times gives out a peculiar pleasing scent unaccountable to the wanderer, when concealed from view as it often is.

Even amidst the tempests of this brumal season, a few stray members of Flora's train may be traced; and in gardens the Sweet Coltsfoot (*Tussilago fragrans*) flowers, as well as the Christmas Rose (*Helleborus niger*). In the woods the Spurge Laurel (*Daphne laureola*), is almost the only plant that gives any visible token of vegetable life by showing a disposition to flower, except that here and there a Gorse-bush (*Ulex Europæus*), with its yellow buds glazed in ice, gives a promise of what a few hours of genial sunshine might perform. But every thing now becomes obscured in sleet and rain, severe frosts set in, or snow covers the earth, till yielding before the milder influences of February;—when at Candlemas, the Primaverall Reign, with which we commenced, again comes round in its turn. Thus, as has been well remarked, “in this our temperate climate, have we a round of botanical amusements all the whole year, and the Botanist can never want for sources of recreation.”*

In glancing upon the varying Floralias of the year and the different images they impress upon the mind, some preference to one or the other may possibly be suggested by fancy or memory, or we may consider

* *Perennial Calendar*, by T. FORSTER, F.L.S.

the *floral sympathies* that many remarkable men have shown for particular flowers; this, perhaps, as a modern writer has remarked, revealing the character in the preference indicated. SHAKESPEARE'S ever vernal mind seems to have rejoiced principally in spring flowers, and hence he reverts to them more than others; — especially does he praise the Violet as “stealing and giving odour,” as he himself could as readily take an idea as originate one. CHAUCER appears to have been quite enamoured of the Daisy, for its regular closing and re-opening, symbolical of “fear of night” and resurrection unto life, seems quite to have been in unison with his old-life ideas.

——“Of all the floures in the mede,
 Than love I most these floures white and rede,
 Such that men callen daisies in our town :
 To them I have so great affectioun,
 As I sayd erst, when comen in the Maie,
 That in my bedde there daweth me no daie,
 That I nam up, and walking in the mede
 To seen this floure ayenst the sunne sprede,
 When it upriseth early by the morrow,
 That blissful sight softeneth my sorrow.”

BURNS could not help celebrating the “wee modest crimson-tipped flower,” but in accordance with his gentle humanity mourns its destruction by his ploughshare, while MONTGOMERY hails it as indicative of the poet's ever observant thoughtfulness — “the daisy never dies.” WALTER SCOTT has mentioned the Wall-flower in connection with happy hours and his antiquarian pursuits; and the pensive BERNARD BARTON marks its golden hue upon old shrines “with fascination to the heart addressed.” WORDSWORTH philosophizing among lakes and mountains, has seized

upon the wild Daffodil as bringing in its March wantonness beauteous images back to the mind, but has lavished profuse praise on the vernal Celandine—

“There’s a flower that shall be mine,
’Tis the little Celandine.”

There may be perhaps some conceit in this, but association with past thoughts or circumstances will flash up in the mind at the sight of a flower, and so give to the poet as well as to other people a hidden charm in some particular plant. So PETRARCH from his romantic love for LAURA, delighted in the Laurel and its shade as connecting his fancy with *her*, and in his sonnets celebrates both his mistress and the tree, from beneath the shade of which he was called to be crowned with his beloved Laurel in the Capitol. In like manner ARIOSTO, the name of whose lady-love (*Gineura*), nearly corresponded with that of a Juniper (*Ginebro*), in one of his sonnets says, that the shrub bearing *her name* that prescribes laws to his troubled soul, shall alone crown his brow.

Our own poets in general rather by implication denote their predilections, as SHELLEY’s delicate organization is shown by the *Sensitive-Plant* winning his muse; while SOUTHEY bold and homely with English thoughts and church attachments, grapples with, lauds, and points a moral in the shining and prickly Holly. BRYANT sees beauty and imagery in an inelegant and neglected Gentian; CRABBE in his truthful strains descends to so homely a vegetable product as the Kelp; while ELLIOTT’s stern temperament led him to take under his protection what all poets had before neglected—the bramble! So then from a poet’s floral pictures we see the *colour of his mind*.—GOLDSMITH’S

sympathy with rural and touching images is associated intimately with the Hawthorn—

“for whispering lovers made;”

and CAMPBELL has referred with buoyant joy to his recollection of the white water lily of the Highland lakes. Even city poets cannot get up their stanzas without a plant of some sort, domesticated though it may be, and LEIGH HUNT recognized drawing-room *comfort* in the feel of a Geranium leaf.—

“And genteel Geranium,

With a leaf for all that come;”

which is natural enough *in its place*, as few fail to pinch a geranium-leaf in the drawing-room or parlour window to imbibe its fragrance.

Scientific botanists have often indicated *their* favourites as well as poets, and perhaps every student loves some genus more than another; hence monographs of particular genera are framed, and the partiality of one observer becomes of utility to the general mass of students. LINNÆUS honoured most of his friends by naming certain genera or species after them, and he himself was delighted to have a little northern flower, “depressed, abject, and long overlooked,”—the delicate *Linnæa borealis*, named after himself, and it figures in his portraits. He was also enamoured with the exquisitely beautiful *Trientalis Europæa*, and HALLER the Swiss botanist in like manner was charmed with *Astrantia major*. Sir J. E. SMITH felt inclined to avow a partiality for the nodding crimson Water Avens, and the authors of most local floras show a fanciful poetical leaning, influencing them in favour of some plant. I think from its delicate beauty and its association in my mind with *oases of bright thought*, I should fix upon the Ivy-leaved

Bell-flower (*Campanula hederacea*).—I first gathered it in Wales, when revelling in new-born freedom from care and anxiety; and by the Severn's source on Plinlimmon, and in numerous other mossy spots vocal with plashing waters, I have since gazed upon its delicate pale blue petals where there was no sound no thought but of pure airy unbounded delight. The plant in its seclusion preserves such pleasures for the wanderer to revel in, and its bright image brings them back again to the mind.

In connection with the thoughts and inspirations awakened by the glories of nature throughout the various seasons of the year, the Botanical Explorator will, in his solitary rambles, often recal the glowing language of one of nature's inspired interpreters, especially adopting as his own, the following noble apostrophe, from an ode of the author of "*The Excursion*."

"And O ye Fountains, Meadows, Hills, and Groves,
Think not of any severing of our loves !
Yet in my heart of hearts I feel your weight ;
I only have relinquish'd one delight
To live beneath your more habitual sway.
I love the brooks which down their channels fret,
Even more than when I tripped lightly as they ;
The innocent brightness of a new-born day
Is lovely yet ;
The clouds that gather round the setting sun
Do take a sober colouring from an age
That hath kept watch o'er man's mortality ;
Another race hath been, and other palms are won.
Thanks to the human heart by which we live,
Thanks to its tenderness, its joys, and fears,
*To me the meanest flower that blows can give
Thoughts that do often lie too deep for tears.*"*

* WORDSWORTH.—Ode-Intimations of Immortality from Recollections of Early Childhood.

WILD FLOWERS OF MAY.

(CONTINUED.)

CHAP. X.

SCIENTIFIC AND POETICAL FLORAL INFLUENCIES. —
SCENES OF PAST WANDERINGS.—MAY FLOWERS ON THE
WELCH MOUNTAINS AND COTTESWOLD HILLS.—DANDE-
LION AND OTHER FIELD FLOWERS. — REMARKABLE
HAWTHORNS. — HORSE-CHESNUT AND OTHER FOREST
TREES.

“The meadow by the river seems *a sea*
Of liquid silver, with the cuckoo-flowers ;
And here and there where 'midst the smiling lea
Caltha in green and gold refulgent towers,
Islets of splendour shine, whose radiance pours
A glory o'er the scene ;—a magic spell
Would tempt me to forget the passing hours,
And in the copse that overlooks the dell,
'Midst primroses and cowslips for a season dwell.

MS.

The botanist may look out upon nature with a scientific or poetical eye—he may either store his herbarium with specimens classified according to the most approved nomenclature, and form his catalogue with a view to claim the notice of the initiated only ; or with more enlarged views he may awaken *general* attention, by connecting the objects of his study with those allusions which can scarcely fail to penetrate to the feelings even of the most unsusceptible. At all

events the re-awakening of vernal life, and the bright succession of flowers that now daily rise up, has an exciting influence upon the mind, and it insensibly reverts back to those bright oases of the memory, that still seem reviving with the sight of renewed vernal life.

The same recurrence of images to the eye, still calls up the buoyant feelings of olden days, while one spark of sensibility remains to warm the heart; for nature still ever revolving, nevertheless displays again the same flowery forms and scents that once taught the swelling heart to bound with irrepressible enthusiasm. Hence it is that the sight of *vernal* flowers cannot fail to call up some blissful emotion in every breast, because memory hurries us back to the *first vernal flowers* that we ran tottering to pluck, or displays the polyanthus we were wont to water in our little garden, or the gaudy flower that beyond our reach, we earnestly entreated an indulgent and beloved parent to pluck for us. These are incidents that all are familiar with; and simple as they are, they affect us because they recal the purest and best sympathies of our nature. Who can fail to be moved with WORDSWORTH's description of the "trembling, earnest company" of little ones, "each with a vernal posy at his breast," who are represented by him as standing round their reverend pastor in the untried character of catechumens. Himself one of that innocent band, he thus beautifully apostrophizes in reference to it:—

"How flutter'd then thy anxious heart for me,
Beloved Mother! Thou whose happy hand
Had bound the flowers I wore, with faithful tie :
Sweet flowers! at whose inaudible command

Her countenance, phantom-like, doth re-appear :
O lost too early for the frequent tear,
And ill requited by this heart-felt sigh ! ”

The month of May with its buds, birds, and fresh green bowers, may well recal the mind to poetical influences and thoughts freshened with the dews of youth, and we yield to them ere the heart grows cold or is clogged with the dusty contentions of life. Looking forth in the early morning hour especially, the distant landscape in twilight with gray vapoury lakes scattered over the low country, all seems still, calm, and serene, the infancy of morning as the infancy of life. The eastern sky brightens into gold with pencil streaks of ruby, and the twitter of the swallow and the musical bell of the Cuckoo are the matin notes of early worship. The meadows wet with a profusion of dew exhibit the liveliest green as the river vapours roll away their fleecy squadrons and ascend towards the dark wooded heights, but daisies, cowslips, and buttercups are yet drowsy on their stalks. One flower only, the yellow Goatsbeard, brisk and wakeful, meets the welcome blaze of the sun upon the eastern hills. Time has been when we were as wakeful too, eager to gaze on nature's beauties, dashing over the reeking meadows in the gray morn like the Bat in the twilight, crossing tottering bridges, heathy wilds, and stumbling over stony places, till amidst scented shrubs we stood panting with excitement waiting for the sun on some mossy hill top. Unless, indeed, the season be very ungenial, the extreme beauty and freshness of vegetation at this period of the year, awakens sensations of buoyant and thrilling delight in every breast not absolutely pros-

trate before disease or despair; while yielding to the excitation of the brilliant scene, we may exclaim with AMBROSE PHILLIPS—

“Have ye seen the broider’d May
All her scented bloom display,
Breezes opening ev’ry hour
This and that expecting flower,
While the mingling birds prolong
From each bush the vernal song?”

“May Flowers” are proverbial, but where shall we look for them?—on the bold sides of the majestic Silurian Malverns, from whence the *pear-trees* of Worcestershire and the *apple-trees* of Herefordshire in their rival blooms of stainless white and rose, present a sight the world cannot equal?—there, taking in the way the broken and wooded limestone heights of Cowleigh and Cradley, with friends ardent and curious, hath been oft our quest.* Shall we pluck May flowers beside the gravelly torrent of the romantic Usk, or on the huge “Black Mountains” that flank its lovely valley with their frowning barrier?—*there* we have been. Shall we look down on the bright plain of Salop, and from the craggy *bladder-stone* of the famed *Wrekin* trace them in the green woods that fill the romantic hollow between that hill and the long Edge of Wenlock, the silvery horseshoes of the Severn gleaming lovely amidst the foliage?—*there* we have been. Shall we trace them by the beauteous Medway amidst its deep woods between Rochester and Maidstone; or slumber as we once slumbered in life’s seeming fair but inexperienced morn among the

* My “*Botany of the Malvern Hills*,” (published by BOGUE, London, and LAMB, Malvern,) can be consulted for the plants there.

lustrous cherry orchards of Kent, and from the chalky hills of Boxley look down in fancy upon a scene we can *now* tread no more? Shall we gaze from Snowdon, Idris, or Plinlimmon?—winter has scarcely left those bleak heights; though high among the rocks, where we have also rambled, the Rose-root (*Rhodiola rosea*), is at least pushing forth its succulent leaves, and just showing its clustered cymes and pale green petals* emerging from sheltered crevices amidst dwarf ferns and dripping mosses. There, too, amidst fearful crags, like a roseate gleam before sunrise, the purple and moss Saxifrages (*S. oppositifolia* and *hypnoides*), spread their lowly but exquisitely beautiful gems.—Shall the Isle of Wight, with its steep chalky cliffs fringed with *Samphire*; or the fair fields of Devon *where no Cowslips grow*, again claim our presence? Shall we dash among the wild cataracts of Glamorgan, beauteous with the crimson drooping blossoms of the Water

* It is remarkable that all botanical authors from LINNÆUS to WITHERING and HOOKER, affirm the colour of the flowers of the *Rhodiola* to be *yellow*, and they are so coloured in the plate of the plant in English Botany; yet strange as it may appear all these great authorities are certainly incorrect, for in a fine plant I brought home from Cadir Idris with five perfectly developed cymes of flowers, not one was yellow at any period of blooming, and the anthers are only purplish, as represented in SOWERBY's plate, when in an immature state. At a little distance, indeed, the *cymes* have a bright golden aspect, but on a close inspection this is seen to arise from the copious *yellow pollen* that completely covers the protruding anthers, combined with the nectaries that glow at the base of the narrow concave petals like minute drops of the richest amber. But the petals themselves, as well as the calyx, are light green. The flowers have a strong scent like that of peppermint-water. The root is slightly rose-scented, and the whole plant in autumn assumes a roseate colour. This curious plant shows how nature delights in anomalies, the stamens and pistils are generally on *different* individuals, hermaphrodite specimens being rare, the stamens are mostly 8, though the central flower has often 10, like *Sedum*, so that SCHRÖBER, DE CANDOLLE, and LINDLEY have classed it as a *Sedum*, with which genus it only differs in the number of its organs, having the habit of *S. telephium*.

Avens (*Geum rivale*) ; or climb with daring step, the fearful crags of the Breidden in Montgomeryshire, to gather once more the white Cinquefoil (*Potentilla rupestris*), on the only mountain in Britain where its stainless flowers charm the wondering gaze ? Shall we mount the strange fortress-like Steiper-stones, or the basaltic Clee Hills in proud Salopia, for the *Yellow Violet* ; pluck the flossy Cotton-grasses, that bend to the breeze white as snow upon the bogs of the Brecon Fans ; or rest in the calm sunny noon amidst the dark and ever verdant thickets that clothe the famed Box-hill in Surrey ?

The Botanical Explorer must progress in turn to a hundred scenes like these, for to him they have a double charm as botanical haunts where kindred spirits have trodden before him, while the scenes they present tinge his thoughts and charm his labours. So inspired, twice have we toiled up the bold limestone shelves of the Great Orme's Head, to see the *Cotoneaster's* round candicant leaves and creamy blooms rooted among the fissures, with broken relics of druidean worship, and riven crags of desolate antiquity darkly looming round as the clouds slowly descended upon the scene.

But the beautiful claims attention equally with the sublime, so rest we for a season near the vale of Gloucester, the countless villas of fair Cheltenham intermixed with the foliage of the vales, and the dark belt of the Cotteswolds rising in theatrical pomp as a fine background that at present meets our view. For we are now upon the long indented Cotteswold ridge, bristling with broken oolitic crags, and adorned with the specious though somewhat rough blue flowers of

the Viper's Bugloss (*Echium vulgare*), and the glistening white ones of *Arabis hirsuta*. The wind blusters about the solitary pile of the "Devil's Chimney," on Leckhampton Hill, threatening the unwary wanderer with loss of hat, while stumbling amidst the stones of this æolian region;—but the eye delights in the vast amphitheatre bending far on either hand, while below a thousand lines of light chase each other over the variegated landscape. Many a grey and many a white tower flash in brightness or sink in shadow, as the light clouds dash on, while sternly solemn, purpureal Malvern frowns throughout his long broken crest in the far distance. In this stony vicinity, the clustered Bell-flower (*Campanula glomerata*), may be found abundant, as well as the little Snap-dragon (*Linaria minor*), and blue *Gentiana amarella*; while in the belt of wood between this and a broken cromlech and barrow above Shurdington, the *Pyrus aria* and *Viburnum lantana* exhibit their white clusters and silvery foliage. But now to the more general features of fair May.

"Bring me those flowers," then, as SHAKSPEARE makes PARIS exclaim, in ROMEO and JULIET—and here they are—the bonnie Blue-bell, sweet-scented yellow Barberry, odorous Hawthorn, golden Broom, and blue-eyed Speedwell, which with the Goldilocks-Crowfoot, shining Cranesbill with its polished red stalks, and bunches of the hairy Violet, will make a jungle garland fit to match in elegance with any garden one. Shall we look out upon the fields?—there the starry Dandelions cover the meads with a robe of gold to be soon succeeded by an ermine mantle of *white clocks*.

—————“ Dandelion this
A college youth that flashes for a day
All gold ; anon he doffs his gaudy suit,
Touch'd by the magic hand of some grave bishop,
And all at once, by commutation strange,
Becomes a reverend divine. How sleek !
How full of grace ! that *globous wig*
So nicely trimm'd.”*

Common as this object is, how beautiful its mechanism when examined as it deserves to be, and how indicative of providential design. When the golden florets wither and the calyx shuts up, the seeds are not ready for the purpose nature designs them, therefore the withered florets, twisted in a mass, keep off the rain, while the pillar of the seed-down grows to its full length, and then they are pushed off; the pillars still rising bear upon the calyx, which now gently expands, while, at the same time, the receptacle altering its form from concave to convex, the calyx is more and more deflexed, till at length its segments are pushed parallel with the stalk,—and the *globe of down* is complete in its beauty, ready and anxious for that mystic flight which spreads its progeny abroad upon the earth.

The Daisies about this time show their argent rays tipped with crimson, in the acmè of their beauty, for their lines of silver will now soon be lost before the more gorgeous sway of millions of golden Buttercups. In orchards a beautiful pale liloid flower now presents itself, the two-flowered Narcissus (*N. biflorus*), often by the first of the month ; the red *Lychnis* or *Campion* (*L. diurna*), begins to beautify the sides of hedges, and the *Cowslips* gradually *going out*, are

relieved by an abundant crop of the meadow Orchis (*O. morio*), and hosts of *Blue-bells*, that give the hue of the azure heavens for a short space to the fields of earth. The May-weed, too, or Cow-parsley (*Chærophyllum sylvestre*), covers various pastures, and the white Stichwort (*Stellaria holosteum*,) shines, while under the banks of coppices the “blue-eyed Speedwell” charms the eye, the lesser Periwinkle spreads a tracery of green leaves and blue cups, and the curious Weasel-snout (*Galeobdolon luteum*,) blooms around.

At length Spring is established, and the woods and groves appear in leafy verdure, oak and ash excepted; and the White-thorn or May, shows itself here and there in the hedges, still sparingly in flower. After a moderately warm April nothing can be more beautiful than the aspect of the country white with hawthorn hedges, rising copiously into flower in every direction, while the gale wafts their fragrance far and wide. But though hedges are a comparatively modern innovation, the Whitethorn is an old English denizen, long loved and honoured, and formerly every village and mansion had its favourite old Thorn, or Bush—

“The hawthorn-bush, with seats beneath the shade,
For talking age, and whispering lovers made.”*

Where these monuments of days of yore have been suffered to remain as relics of the past, they have attained a considerable size. In front of a little public house at Shrawley Wier close to the Severn, about nine miles above Worcester, I noticed one some years ago, with a bole full nine feet in circumference, and a very lofty branched tree yet stands in a neglected part of the shrubbery at Forthampton Cottage,

* GOLDSMITH.

Gloucestershire, with a conjoined triple bole, all moss and lichen-covered, and probably more than four centuries old. I also remember several very fine ones, ivy-cinctured, and with innumerable tortuous arms, on the feathery summit of the Little Skirid, near Abergavenny, Monmouthshire;—but never have I seen this reverend tree's grey locks more beautiful than amid the southern trenches of the camp on the summit of the Salopian Wrekin, where numerous old trees lie scattered, of the slow growth of centuries. My memory doats upon a blissful afternoon I once spent there, dozing on the sunny bank, and ever and anon looking upon the "siller gray" thorns, the tremendously rugged glacis of the hill fortress, and below upon the glorious vale, serpentized by the sparkling Severn, and bounded beyond by the rich groves of Buildwas, and the indented waving ridge of wind-blown Wenlock. Those were young days of toil, sorrow, and depression, when poetry burnt me up, but enthusiasm summoned me to many a wild embowered scene, and offered consolations amidst Nature's beauties that cheered me then, and have scarcely lost their inspiring influence now. In parks hawthorns often appear as if in clumps, their boles divided and multiplied, which is a sign of extreme old age. In the "bottoms" of the Cotteswolds, as they are termed, numerous many-boled hawthorns may yet be seen, some of them singularly overgrown with ivy, twisted, and remarkably tortuous. A curious one of this kind, in the park at Enville, near Stourbridge, has twelve boles spreading out from the base. There are many species of Hawthorn (*Cratægeus*), and numerous countries have a peculiar one allotted to each, but

our own British tree yields in beauty to none of the others, and has surely been more celebrated in the pages of our poets, scarcely one omitting to mention it or praise its pearly blossoms. Its pleasant shadow in summer offers repose to the tired shepherd, who

————— “tells his tale

Under the Hawthorn in the dale,”

and Burns makes it the sheltering canopy for happy lovers in the evening hour, when the May moon perhaps is rising over the clouds upon its glistening clusters.

Another beautiful object in April and May is presented when the Horse-Chesnut trees put forth their splendid spikes of flowers, most magnificent in aspect, for they are often in such profusion as at a little distance to give each tree the resemblance of one gigantic boquet.

————— “The thick Chesnut gloriously array’d;

For in its honour prodigal Nature weaves
A princely vestment, and profusely showers
O’er its green masses of broad palmy leaves,
Ten thousand waxen pyramidal flowers;
And gay and gracefully its head it heaves
Into the air, and monarch like it towers,
Dimming all other trees.”*

The Ash, Beech, Birch, Alder, Oak, Scotch Fir, Sycamore, Maple, and many other forest trees are now in bloom. On various heathy hills, also, the common Juniper (*Juniperus communis*), is in flower with the last year’s berries upon it still green; for in this country they are biennial. Several grasses, and among them the sweet-scented Vernal begin to exhibit their spikes, and “Jack-by-the-hedge,” (*Erysimum alliaria*),

* WILLIAM and MARY HOWITT’S *Forest Minstrel*.

sprinkles hedge banks with a border of milky hue. The pretty *Geranium lucidum* now spreads abundantly its bright red stalks, the Bush-vetch (*Vicium sepium*), shows itself, as well as the little Bird's-foot (*Ornithopus perpusillus*), and the purple flowers of the bitter heath Vetch (*Orobus tuberosus*).

We have now reached the middle of the *Vernal* season—fresh flowers too numerous to recount, are daily springing up—the cuckoo sings all day, the nightingale all night—the weather is fair and “seasonable,” and every thing looks daily more and more beautiful.

WILD FLOWERS OF MAY.

(CONTINUED.)

CHAP. XI.

THE BONNIE BROOM.—FLOWERS OF THE UPLAND WOOD
AND ITS TINKLING RILLS.—THOSE OF THE RUINED AB-
BEY.—THE BOG.—THE GARDEN.—SKETCH OF THE LILAC.
—MAY-WEED.—HERB PARIS.—APPLE ORCHARDS IN
FLOWER.—TULIP BEDS AND VALUE OF THEIR BULBS.—
MOUNTAIN AND WOOD FLOWERS.—FLOAT ON THE WATER.

“Throw hither all your quaint enamell’d eyes,
That on the green turf suck the honied showers,
And purple all the ground with vernal flowers.”

MILTON’S LYCIDAS.

The wood, the open country, and the garden, are all now equally delightful. Flowers of every hue attend upon us at each step we take. In the wild glen the “bonny bonny Broom” (*Sarothamnus scoparius*), covers every slope with golden veins, recalling the glowing language of BURNS, and many a pleasant recollection.

“Their groves of sweet myrtle let foreign lands reckon,
Where bright beaming summers exalt the perfume;
Far dearer to me yon lone glen o’ green breckan,
Wi’ the burn stealing under the lang yellow broom.”

The lonely places where the Broom grows may perhaps explain SHAKSPEARE’S mention of it in connection with the “dismissed bachelor,” for an American traveller thus remarks:—“For hours I followed a mule

path in the most deserted part of Sicily, cheerful with its [the broom's] blossoms, whose rich yet delicate odour embalmed the air; hence the significance of SHAKESPEARE'S allusion to this flower 'which the dismissed batchelor loves, being lass-lorn.'"—We must suppose the "dismissed batchelor" in this case, to fly from the perfidious fair one into Nature's solitudes, and there soothed by floral charms, put the broom in his button-hole, and rejoicing that his hat covers his responsibilities, consider on calm reflexion that his case is not so very unendurable after all! Or retiring within himself, amidst the solitude of broom wastes, and far from the busy stir of life, he may attempt to recall the happy visions that once haunted his imagination. THOMSON in his "*Castle of Indolence*," paints a broomy spot as a fit place for the listless enjoyment of a mere loiterer intent on the enjoyment of the *dolce far niente*.

"*Amidst the broom* he basked him on the ground,
Where the wild thyme and camomile are found."

But leaving the gay but barren broomy slopes to those who may like them, let the botanical looker-out be up and awake—

"The morning shines, and the fresh field
Calls us:————mark how spring
Our tender plants."*

In the upland wood thousands of Bilberry blossoms (*Vaccinium myrtillus*), droop their rosy bells, and a booming host of "red-hipt humble-bees" are attendant upon them; the graceful Mountain Ash (*Pyrus aucuparia*), displays its white clusters on the hill; the Way-faring tree (*Viburnum lantana*), in the limestone copse; and the Guelder-rose (*V. opulus*), fringes the

* MILTON.

borders of wandering brooks with its silvery stars. In the open field the elegant green-flowered Ladies' Mantle (*Alchemilla vulgaris*), charms the eye and shows its wide plaited leaves amidst the grass, while the scattered flowers of the White Saxifrage (*Saxifraga granulata*), and the meek blue ones of the wood Scorpion-grass (*Myosotis sylvatica*), have a lovely effect.

The woods are now glorious with their fresh and green umbrageous multitude of leaves; and within their cool recesses how delightful to pass the noontide hours. Oft have we done so, reading a page of *living* poetry, surrounded by an investiture of quivering foliage, hiding nought else but mossy banks, blue skies, or sailing clouds. In such lone spots the blue Columbine (*Aquilegia vulgaris*), adorns the scene; the Woodruffe (*Asperula odorata*), fills the air with fragrance; and the delicate Lily of the Valley (*Convallaria majalis*), droops its stainless bells. The mountain Speedwell (*Veronica montana*), a great lover of the shade, adorns with its pale blue flowers the ground of the wood, contrasted here and there with the yellow Pimpernel, and the deeper blue of the Milkwort (*Polygala vulgaris*). The tinkling rill that slowly winds its way amidst a labyrinth of briars, is profusely covered with the snowy clusters of the Ramsons, or broad-leaved Garlick, (*Allium ursinum*), and the tall Comfrey (*Symphytum officinalis*), is conspicuous by the river, with its curled corollas of dingy purple and long-pointed rough leaves. In the same locality the shaggy spikes of the great river Carex (*C. riparia*), present themselves, forming thickets where the *black-headed Bunting* loves to hide, and on whose tall stems the quick-darting pink-hued Dragon-flies, or orange-

tipt butterflies love to rest; while the gravelly shallows glitter with the silver flowers of the Water-Crowfoot (*Ranunculus aquatilis*), that spread their white petals on the water in countless multitudes. By the sides of roads the red flowers of the Hound's-tongue (*Cynoglossum officinale*), begin to make a conspicuous appearance.

Now suppose we have wandered close to the crumbling walls of some ivy-invested abbey—there beauteous amidst desolation and decay the Wall-flower (*Cheiranthus cheiri*), spreads odours on the balmy wing of morning, the yellow-flowered Barberry (*Berberis vulgaris*), appears on the wall, and the ivy-leaved Snapdragon (*Antirrhinum cymbalaria*), droops her purple blossoms in luxuriant profusion, while amidst the rubbish of broken tombs and tracery, the great Celandine (*Chelidonium majus*), shows her golden but fugacious flowers, mostly in man's vicinity or where he hath been. May "from her green lap throws" many other beautiful and characteristic flowers to those who look for them—among these we may mention, the Red-rattle (*Pedicularis sylvatica*), conspicuous in boggy places with its bright pink flowers rising from amidst the green moss; the broad-leaved Orchis (*O. latifolia*), when luxuriant as it is in some of the Welch upland bogs, truly regal in its purple insignia, the lovely petal-fringed Water Buckbean (*Menyanthes trifoliata*), tempting the spoiling hand, though mostly safely out of reach in its splashy asylum, and the *Eriophori*, or Cotton-Grasses, which waving their downy silvery tresses before the breeze like a cloud of snow-flakes, present a charming spectacle to every adventurer in the vicinity of mountainous scenery.

Towards the close of the month the Burnet Rose (*Rosa spinosissima*), presents its cream-coloured and delicately scented flower, a week or two before its sisters of the same family, somewhat rare, however, except in the vicinity of the coast. At length under the influence of a bright May's increasing temperature, the Hawthorn (*Crataegus oxyacantha*), puts on its snowy attire in full perfection, and filling the country far and wide with fragrance, "with its locks o' siller grey" dots the landscape with indescribable beauty. This is so favourite a tree with me, that I cannot forbear to quote HOWITT's sweet lines upon it, breathing fragrance delicious as the unsullied May itself in his "*Forest Minstrel*."—

"The beautiful Hawthorn, that has now put on
Its summer luxury of snowy wreaths;
Bending its branches in exuberant bloom,
While to the light enamour'd gale it breathes,
Rife as its loveliness, its rathe perfume:
Glory of England's landscape! favourite tree
Of bard and lover! it flings far and free
Its grateful incense: whether you arise
To catch the first long sun-gleam in the skies,
And list the earliest bird-notes; whether you
Linger amidst the twilight and the dew—
There, through the silent air its odour strays,
Sweet as in home-scenes of our earliest days."

Who can forget, in reference to the Hawthorn, that matchless verse of BURNS, where he describes the happy lovers seated

"Beneath the milk-white Thorn that scents the evening gale."
If, however, any lady is so fastidious as to object to our (of course platonic) effusions "beneath the milk-white Thorn," we beg to move an adjournment to the garden, where, perhaps, the shade of some dark

“lover’s walk” of Yew, Hazel, or Honeysuckle, may be found equally convenient for meditation. Here, looking out from our pleasing position, what inspiring objects meet the view. The Lilac (*Syringa persica*), and its varieties of paler purple and white, brilliantly mantle the shrubbery with colorific hues; the Laburnum (*Cytisus laburnum*), “in streaming gold” breaks upon the charmed eye, and hangs its golden chains with profuse luxuriance. This, indeed, is the time to enjoy the garden, while its transitory beauties last. Among these, the Summer-Snow-flake (*Leucojum æstivum*), and the deep purple Iris (*I. germanica*), appear. *Narcissus poeticus* is still in full beauty, and the following flowers, among a host of others, may be noticed as of frequent occurrence in gardens:—*Azalea pontica*, purple Rhododendron (*R. ponticum*), Virginian Spiderwort (*Tradescentia Virginica*), sweet-scented Daphne (*D. cneorum*), White Broom (*Spartium multiflorum*), the specious Peony (*Peonia corallina*), the various kinds of Stocks, and Oriental Poppies.

Chief among the ornaments of the shrubbery, the flowering thyrsi of the Lilac present an unrivalled spectacle, while their fragrance is one of the most exciting things that inspire the senses in the perfumed garden, after the slumbers of the night in the vitiated air of the chamber. PHILLIPS, in his “*Sylva Florifera*,” thus rapturously mentions the Lilac in language almost imbued with the sweets of the flower itself.—“The delightful sensation which the lovely tints of this elegant flower and its fragrance produces on us in the month of May, has been compared to the first emotions of love, for nature seems to have ordained that mortals should not be permitted to see

the one or feel the other with indifference; for who can behold the flexible and modest, yet dignified clusters of this charming flower, whose colours vary at every movement, and so sweetly descend from the finest violet down to the silvery white, without regretting the short duration of so divine a gift." Perhaps, therefore, the following lines may recal to some minds the pristine delight with which the favourite Lilac was once hailed in early days when in its acmé of splendour.

THE LILAC BOUGH.

I see it glittering by the wall,
Methinks I see it now ;
For me a stripling much too tall,
The flowering Lilac bough.
'Twas April's reign of splendour gay,
That comes by fits and starts ;
A world of tears, and then a ray
Exulting to all hearts.
Bright beam'd the Lilac to my eye,
All brilliance and delight ;
Its purple, with the azure sky
Contrasting exquisite !
Thus standing, vainly on the gems
Making my weak essay ;
A father's hand tore off the stems,
And sent me proud away.
The Lilac since for many a spring
Has blossom'd o'er my brow ;—
And still I see it clustering
As on that first bright bough.
'Tis only recollection's power,
And gleams of days of yore—
All vanish'd !—and its purple flower
I ask to pluck no more.

But again the woods and fields tempt us to look out *there*. In May, many meadows exhibit a peculiar feature in the abundance of *umbelliferous* plants, whose rank herbage covers them. This natural family is distinguished by the flowers being always in *umbels*, (the pedicels all proceeding from a central point like the frame-work of an umbrella,) simple or compound; the styles are two, mostly persistent on the fruit, which consists of two *carpels*, separable from a common axis to which they adhere by their face or *commissure*. They are herbs generally with hollow furrowed stems, often dangerous or poisonous, except blanchéd as in the celery, but the fruit is aromatic and pungent. The common Hemlock may give a good idea of the group. At this period the May-Weed (*Anthriscus sylvestris*), is distinguished among the *Umbelliferae*, often completely covering and whitening over whole fields especially in the vicinity of coppices, where even the ebon robe of night becomes embroidered with a broad border of silver. Another less conspicuous species, *A. vulgaris*, with smaller flowers and tri-pinnate leaves, may be seen under hedges often near to towns and villages; and the Gout-weed (*Ægopodium podagraria*), is observable on river banks and moist waste places very socially clustered in its selected localities. The Sulphur-weed Water-dropwort (*Enanthe peucedanifolia*), now commences flowering in wet meadows, its leaves all linear, and distinguished by the sessile-elliptical tubers of its roots. This has been confounded by most botanists till recently, with *Æ. Lachenalii*, more of a coast plant, whose tubers are vermiform and very much longer. The latter flowers in August and September.

In thick woods, a singular dull-looking flower rising from the centre of four leaves, called Herb Paris (*P. quadrifolia*), often meets the searching eye. Its green calyx and four green petals are soon succeeded by a solitary lurid purple berry, whence the name given to it by rustics of "One-berry," or "True-love." Perhaps the latter name may be assigned it from a rustic superstition that any flower or leaf that *multiplies its parts*, or becomes distorted, is to be considered precious; as a four-leaved-trefoil or shamrock, a six-partite leaf of a cinquefoil, &c. Thus, W. BROWNE, in his "*Britannia's Pastorals*," alludes to the blossom of a Primrose accidentally possessing six petals (called by him *leaves*), instead of the usual number five.

"The Primrose when with *six* leaves gotten grace,
Maids as a *true-love* in their bosoms place."

Herb Paris is very remarkable in this way, for it is not uncommon to find specimens with five or even six leaves, and occasionally the divisions of the calyx and the petals are also multiplied. Though not uncommon in sheltered woody spots, it so seldom meets the gaze of a non-botanical eye, as to excuse the beautiful sketch of it given by GRAHAME, who in his researches after birds, had probably never before seen it.

———— "There is a Hawthorn tree
With which the Ivy arms have wrestled long;
'Tis old, yet vigorous: beneath its shade
A beauteous herb, so rare, that all the woods
For far and near around, cannot produce
Its like, shoots upright; from the stalk
Four pointed leaves, luxuriant, smooth, diverge,
Crown'd with a berry of deep purple hue.
Upon this aged Thorn, a lovely pair
Of Cushats wont to build." *

* GRAHAME'S *Birds of Scotland*.

In rocky secluded woods half unbosomed by the forester, where the wood-ants were swarming on many a crumbly pile of broken twigs; or on the encrusted ledge of some embowered brook, hoarsely lashing the dark stones in its deep bed, have we oft in devious progress noticed the green sullen Paris, ere the lofty Ash had completed its leafy adornment, and while the glades of the copsy grove were still brilliant with the blue-bell, relieved at intervals by the deep red of the Campion (*Lychnis diurna*), glowing in the shade like a blazing ensigu.

In the cider counties the Apple orchards are now the charm of the landscape wherever they occur. Upon the precipitous slopes of the beauteous valley of the Teme, in Worcestershire, backed by woods of ancient growth upon the Silurian hills, they perhaps appear in the highest possible perfection, and mixed up with old timbered houses, wooden spires, and numerous thatched cottages and little gardens with their trim Yews and Hollies, all telling of cultivation and comfort, form a truly English and inspiring picture in the noon of a bright and glowing day towards the end of May. In a late spring the silver blossoms of some pear orchards finely blend and contrast with the red and not fully expanded petals of the apples, which every succeeding day glow with increasing beauty, giving a peculiar though short-lived charm to the rural scene. The summer approaches its highest beauty when, as an acute naturalist has observed, "Pomona, dressed as it were in her snow-white garment, celebrates her nuptials; while the Tulip, Narcissus, and Peony adorn the garden, the fresh shoots of the Fir illuminate the

woods, and the Juniper sheds its impregnating vapour." *

Once more the garden demands our notice, for there the Tulip-beds are become one dazzling blaze of splendour, almost tiring to the startled gaze. This familiar but gaudy flower, like many others of the parterre was derived from the East, and it still flourishes spontaneously in Asia Minor, its name being derived from some resemblance to the turban worn by the orientals. The Tulip found its way into England in the reign of Elizabeth, and now constitutes one of those "florists' flowers" on which cultivators bestow so much time and trouble to induce perfection in the bloom itself or create new varieties. To this they are instigated with increasing ardour by the various Horticultural Exhibitions so common every where in the present day, and growers look carefully over their beds, and make those selections from whence their prize flowers of "Bizarres" and "Byblœmens," with a thousand princely and imperial names, are to bear away the palm from a host of streaked competitors.

The "Tulipomania" that once raged in Holland, when Tulip-bulbs passed from hand to hand at great premiums, like our present mining and railway shares, without any one wishing *permanent* possession, has been often dilated upon; yet few besides professional florists, are aware that, even *now*, certain rare bulbs bear an enormous price. Not very long ago, a London florist transmitted us a list of his bulbs for sale, with their prices, which for curiosity we now extract from, premising that the sums annexed are *per root*,

and may be obtained, most likely, from all commercial florists "*to order*," by any person anxious for initiation in *Tulipology*.

	£.	s.	d.
Rose Brilliante	2	2	0
Ponceau Tres Blanc (Dutch)	2	10	0
Julianna	5	5	0
Grand Rose Imperial	10	10	0
Pompe Funebre.....	10	10	0
Lac (<i>true</i>).....	15	15	0
Pandora	21	0	0
Shakspeare.....	21	0	0
Parmegiano	50	0	0
Groom's King William IV.	50	0	0

In this list £50. appears as the maximum price, but still purer or rarer gems may be had *higher*; for a tulipomaniacal friend, whose name often appeared in the records of horticultural shows, once told us he had been asked £70. for "Fanny Kemble," and that there were a few bulbs that mounted up in the scale even to £150; which I should think with DIOGENES of old though on a different matter, was paying rather too dear for—*repentance*! It must be observed, however, that some amount of time and trouble is necessary to raise tulips from seed, the only way to get new varieties of value, and that numerous efforts may be made before a really superior flower worth notice can be obtained. Indeed the manufacture of "florists' flowers" is an affair out of the genuine pale of botanical research, and not unfrequently *forces* nature and all parties concerned in the operation of *bringing out something new*, to be very much out of humour; for bickerings, jealousies, and disputes with rival growers generally contrive to *come out at the same time*, with the new and too highly laudated bloom. Field Botanists in-

deed, are not without their little jealousies, "pity it is," when candour and kindness are forgotten on account of some fancied neglect; but mercenary motives being excluded, *their* animosities are not quite so deadly as those of the gardeners—merely the hum of the hornet without its sting. The owners of beds of tulips are very chary of them, and when in their pride of bloom, they may be inspected with wonder and even pleasure, as a proof of the powers of culture *directed to one point*, though we may smile, perhaps, at the extravagant value placed upon them. This has been well remarked upon by a cynic of the last century, whose observations appeared in "*The Tatler*," and they are not undeserving of quotation now. The writer thus mentions his visit to the proprietor of a tulip garden, and recording a whimsical incident, which possibly may be a little exaggerated.

"The owner told me that he valued the bed of flowers which lay before us, and was not above twenty yards in length and two in breadth, more than he would the best hundred acres of land in England; and added that it would have been worth twice the money it is, if a foolish cookmaid of his had not almost ruined him, the last winter, by mistaking a handful of tulip roots for an heap of *onions*, 'and by that means (says he) made me a dish of porridge that cost me *above a thousand pounds sterling*!' He then showed me what he thought the finest of his tulips, which I found received all their value from their rarity and oddness, and put me in mind of your great fortunes, which are not always the greatest beauties.

"I have often looked upon it as a piece of happiness, that I have never fallen into any of these

fantastical tastes, nor esteemed any thing the more for its being uncommon and hard to be met with. For this reason, I look upon the whole country, in spring time, as a spacious garden, and make as many visits to a spot of daisies, or a bank of violets, as a florist does to his borders or parterres. There is not a bush in blossom within a mile of me which I am not acquainted with, nor scarce a daffodil or cowslip that withers away in my neighbourhood, without my missing it. I walked home in this temper of mind, through several fields and meadows, with an unspeakable pleasure, not without reflecting on the bounty of Providence, which has made the most pleasing and beautiful objects, the most ordinary and most common."

Many plants of the woods and meadows remain to be noticed that adorn this month with their flowery glories. Among these in rocky woods ever charming to the eye, is the beautiful Holly (*Ilex aquifolia*), whose small white flowers might however be unnoticed but for the multitude of bees humming their song of gladness about them. Marshy spots among the mountains of Wales produce the gay yellow Globe-flower (*Trollius Europæus*), whose appearance proclaims broken rocks, rushing streams, and romantic solitudes vocal with water-falls, as we have oft found when our tired foot has rested for a while among the stern secluded fastnesses of Caernarvon and Merioneth. Within dark shadowy recesses on the margin of deep burrowing brooks or laved by the murmuring water itself, the bashful Water Avens (*Geum rivale*), delights to abide, drooping her crimson petals charmingly, worth a journey to behold. About groves and

copsy places the fair Columbine (*Aquilegia vulgaris*), oft shows its blue flowers as well as purple and white varieties; and within the thickest woods the Milkwort (*Polygala vulgaris*) presents its curious wing-like purple flowers, where, though unseen, the Turtle-dove is traced by its low solemn coo, like a voice from the trees, amidst the tangled foliage. To the sensitive mind and the scrutinizing eye such objects cannot fail to impart delight, nor is it necessary to go very far to enjoy them, for quiet nooks of rural beauty are often nearer to towns and the busy haunts of men than are imagined by dwellers at home. As a specimen of scenery on a small scale almost as enchanting as in wilder districts, I may mention the Sapey brook running on the western border of Worcestershire, and especially wild and clifty about Tedstone-de-la-mere, a Herefordshire parish. To this locality when I rambled with the Worcestershire Naturalist's Club, I made a note of our doings as follows.—From the lofty site of Clifton church we descended to Sapey brook, whose deep course in the sandstone glen, half choked with great broken slabs of sandstone and environed about with lofty banks and dense foliage, is quite of a Welsh character. Little waterfalls and deep pools continually occur, and the dingle deeply overshadowed and made musical by bubbling waters has a truly sub-alpine aspect. We proceeded to the Hope Mill, where the stream is crossed by a rustic foot-bridge, and then followed its course to Lower Sapey. From Hope Mill to the bridge of Lower Sapey, the brook offers a continual scene of excitement—sometimes leaving a little islet in its midst overgrown with enormous coltsfoot leaves (*Tussilago petasites*), and throughout having

great masses of sandstone in its bed of various sizes and shapes, some covered all over with moss, but the generality bare and giving a wilderness aspect to the scene. We leaped from stone to stone wherever we could, and where we were unable from the intervention of a deeper reach of the water, climbed the steep bank, again to descend to the deep shadowy and slabby bed of the brook. Some distance below the Hope Mill we found a great sandstone slab on the side of the brook marked with those semicircular indentations that countenance the tradition and legend of *St. Catharine's mare and colt*, said to have left their impressions upon the sandstones in the bed of the brook when carried off by thieves, who were thus detected, and their spoil recovered! * The slabs with the marks upon them are generally found on the stones exposed to the degrading influence of the water, which seems to wash out the softer particles of argillaceous matter that filled up a former hollow made by some means when the sandstone strata was originally deposited. The brook itself now flows at the bottom of a very deep chasm in the sandstone strata, which some ancient convulsion or rush of water must have given rise to. On the shaded banks of the brook above Hope Mill, we found plenty of the rare *Carex strigosa*, and below the mill in several spots the rosy Snakeweed (*Polygonum bistorta*), in full flower, and scattered on the rocky banks in almost impassable places, the pretty white *Saxifraga granulata*. The exquisitely blossomed Wood Vetch

* The subject has been illustrated and examined in its geological relations, in a work entitled "Observations on certain curious indentations in the old red sandstone of Worcestershire and Herefordshire, considered as the tracks of antediluvian animals, &c," by JABEZ ALLIES, Esq., F.S.A.

(*Vicia sylvatica*,) covers the banks of the brook most profusely with its lengthened braids twisting high among the thickets. At Sapey bridge, too, where a tumbling rill offers its tribute to the larger brook, the flowers of the Columbine brightened the banks, and the common Balm (*Melissa officinalis*), appeared as if wild. In a very overgrown and steepish place near this spot, close to the main stream, I detected the curious *Geum intermedium*, and a few yards further several tall plants of the graceful Water Avena (*G. rivale*). The former plant illustrates one of those curious points that frequently claim the attention of botanists—the bounds within which species may vary or approximate to other species. *Geum intermedium*, so designated by EHRHART, is a highly remarkable plant, as large as *G. rivale*, and the corolla nearly as fine, only that the petals are of a brilliant yellow as in the common *G. urbanum*, but thrice as large. When compared with *G. rivale*, its size and height are the same, and the foliage agrees in softness and thinness (not having the stiff prominent veins *beneath* so conspicuous in *G. urbanum*), but the *terminal lobe* instead of being only deeply cut as in *rivale*, is *divided to the base*. The stem leaves are larger than in *rivale*, deeply three-lobed, and the stipules much larger with deeply indented teeth. Flowers slightly nodding, calyx green, patent, not so hairy as in *rivale*, nor purple as in that. Petals brilliant yellow, not quite so large nor with the prominent diverging veins so noticeable in *G. rivale*. Upper joint of the awn covered with long hairs, but the *glabrous point is strait*, not nodding as in *rivale*. The larger flowers, much broader petals, and patent calyx at once distin-

guish this curious plant from *G. urbanum*, and the *hairy upper joint of the awn* is very remarkable and discriminative. The foliage, however, seems almost exactly *intermediate* between *urbanum* and *rivale*, but is much less coarser than in the former, and does not exhibit such prominent veins. The stipules are smaller, not so wide, with fewer but more deeply indented teeth. On the whole it has much the aspect of a hybrid.

Many other rare or remarkable plants are to be found in the interesting vicinity of this romantic brook, where Dr. SEWARD first noticed *Hypericum dubium* as a British plant. Here I have gathered the Lungwort or Jerusalem Cowslip (*Pulmonaria officinalis*), *Rosa rubiginosa*, Dame's Violet (*Hesperis matronalis*), *Mentha rotundifolia*, Butterfly Orchis (*Habenaria chlorantha*), Pyramidal Orchis (*O. pyramidalis*), its red flowers presenting a lovely spectacle, Fragrant Gymnadenia (*G. conopsea*), Bee Orchis (*Ophrys apifera*), Broad-leaved Helleborine (*Epipactis latifolia*), and the rarer and elegant Marsh Helleborine (*Epipactis palustris*). Nearer to Tedstone the banks of the brook rise to a commanding height, shadowy with lofty trees, and their faces encrusted with travertine. Near the Hoar Stone a bubbling spring helps to clothe the rocks with the most vivid verdure, while the receding broken ravine shows a waterfall, neglected and unknown indeed, but equal in beauty to many of higher pretensions. Such are a sample of the scenes unveiled to the botanical explorer only within the compass of a day's walk. In returning to Worcester we crossed the river Teme by a curious old bridge near Ham Castle, which now nourishes on its walls in

a dwarf state, and has done for many years past, the pretty fern *Asplenium viride*, generally only to be gathered from moist alpine rocks.

In the open country, as May closes its flowery reign, all is verdant and beautiful, and the meadows rustle with luxuriant rising grass and golden crow-foots, for the silver cuckoo-flowers have faded away, and in their place various docks and the characteristic large Summer Daisy (*Chrysanthemum leucanthemum*), and other composites begin to appear. On a brilliant sunny afternoon, a float down the sleepy glazy stream of some glittering river, as the Medway or "Sabrina fair," whose shallows are brilliant with the large silvery flowers close clustered together of the River Crowfoot (*Ranunculus fluitans*, Lam.)* is particularly delightful; while, as the dewy evening approaches, and the sun's fiery orb rests upon the horizon, the Corn-Crake, newly arrived from his migration, commences his harsh note—till, amidst the gloom of night, an incessant and reiterated *creck creck*-ing resounds through every field. On the tranquil bosom of the silent stream the young May moon trembles in transcendent lustre.

* The Rev. W. A. LEIGHTON, in his instructive *Flora of Shropshire*, very pleasingly alludes to this floating plant, as constituting the "tresses fair" of Sabrina, in MILTON's *Comus*.

EXPLORATORY NOTICES FOR MAY.

In this month the phanerogamous, or flowering plants, should almost exclusively be attended to, unless the Explorer be wandering in places of difficult access, which he is not likely to again explore, such as the wilds of Scotland, or the rocks of Cumberland and Wales. In such spots, of course, all will be fish that comes to the net; indeed, the exploring botanist will never shut his eyes for a moment when abroad; for it is a matter of general experience, that, although the particular plants sought for may not be met with, yet, others are sure to be found, perhaps not before previously recorded as occurring in that locality.

It is not possible to lay down a rule that shall be applicable to *all* plants; but, in general, it is best to lay the specimens out upon fresh papers immediately upon arrival at home, but without applying any weight upon them that night. In the morning they should be again changed, and the more succulent ones placed by themselves; and it is now expedient to lay on a moderate weight, which, as the plants grow drier, should be gradually increased. Till quite dry they should by no means be left for more than a day with a heavy weight upon them, or the juices will penetrate the underlying papers, spoiling both them and the plants below. The common botanical press does exceedingly well for the smaller and finer specimens, as

well as for the Grasses, Ferns, &c., but it is not adapted so well for larger or succulent-stemmed plants. I have found it best, when time pressed, or I had not the means of proceeding exactly *secundem artem*, when travelling, to lay the specimens I had collected loosely between brown or thick cap-paper, (let blotting-paper be always eschewed,) covered at each end with a piece of card-board, and just sufficiently secured with a cord. I have thus, without much injury, carried specimens for hundreds of miles. Indeed, I have often found old memorandum books that I had neglected for years, and carried loosely in the pocket at the time, to preserve some specimens almost as fresh and good as if but recently gathered; but in these instances no pressure had been applied to the papers.

Since the first edition of this volume was printed, I have had opportunities of trying BENTALL'S Botanical Drying Paper, and I can recommend it as being the best I know for placing plants in during the process of drying, if a sufficient thickness of it can be left between each layer of plants collected. A quantity of it may be conveniently taken by the tourist, secured by one or two stout leather straps, buckled between two strong oak boards, the plants collected being placed between thicknesses of the paper, and the strap again tightly applied. This package can be passed with the luggage, by train or otherwise, easily enough without injury, but it is not adapted for the pedestrian traveller. The latter, if collecting to any extent, can however still use this paper, and forward the result of his labours in packages of it.

From long experience I consider brown or "bag-cap" paper the best to preserve plants in *permanently*,

when fastened down. The *colours* of flowers are difficult to preserve for any length of time, as a very little damp abstracts them. The blues especially are liable to fade. A very dry room, therefore, should, if possible, be always selected to hold the Herbarium.

WILD FLOWERS OF JUNE.

CHAP. XII.

EXCITEMENT TO BOTANICAL WANDERING. — HABITATS OF PLANTS. — THOSE OF THE BOG, WOOD, MEADOW, AND RIVER-SIDE. — ROMANTIC CLIFFS OF THE WYE. — PLANTS OF THE SANDY BEACH AND MARITIME ROCKS. — DESCRIPTION OF THE PRINCIPAL BRITISH FERNS. — SCENE IN GLYN CLYDACH WITH THE LADY FERNS.

“ How sweet it is, when mother Fancy rocks
The wayward brain, to saunter through a wood !
An old place, full of many a lovely brood ;
Tall trees, green arbours, and ground flowers in flocks.”

WORDSWORTH.

ONE obvious charm of Botany is the continual excitement it holds forth to wander amidst the wild scenes of nature : and these wanderings are somewhat different from the saunter of the promenade, and require a little more exertion than the range of the smooth gravel beds of the garden. Woods, bogs, marshes, mountains, the precipitous crag, and the low expanse of sandy shore—all have their peculiar plants ; and to find out the *habitat* of any remarkable plant is the delight of the Botanist, and affords him unmixed pleasure. When tired with his long walk in the burning rays of noon, he sits down beside a tuft of scented fern, where a chrystal spring tinkles among the pebbles at its birth-place, his eye beams with pleasure to behold the fairy vegetation that have found a dwelling within this cool recess. All about

his feet are the round shining leaves of the Marsh Penny-wort (*Hydrocotyle vulgaris*), among which the Flea Carex, and brown-spiked *Blysmus* appear; here the blue *Pinguicula* or Butterwort, with its oily leaves covered with the spoils of minute flies, enjoys the moisture of the bog; the red Sundew (*Drosera rotundifolia*), spreads out its rosy hairs in such congenial localities, each tipped with a pellucid gummy drop; and the Rose Pimpernel (*Anagallis tenella*), mingles its hosts of pale pink blossoms with the gray bog-moss that spreads far around; while occasionally, the still more delicate and beautiful *ivy-leaved* Bell-flower (*Wahlenbergia hederacea*), presents its exquisite azure petals.

In still wetter spots the singular rigid looking Mare's-tail (*Hippuris vulgaris*), abounds; and with its beautiful spike of roseate-coloured flowers rising upwards, while its multified leaves are concealed beneath the water, appears the Water-Violet (*Hottonia palustris*), though by no means of common occurrence. Where sequestered pools with boggy and sedgy margins adorn the wide-spread waste, many of the rarer Carices flourish, or the Hare's-tail Cotton-grass (*Eriophorum vaginatum*), whitens the plain; and in such places the great Spearwort (*Ranunculus Lingua*) lifts its tall stem and golden flowers, the lovely but less aspiring *Menyanthes* cradled in the water at its feet, half hidden amidst moss and sedgy foliage. On neglected commons, like Sutton Park, near Birmingham, a favourite resort of Warwickshire botanists, such plants may still be seen even in proximity to cultivation, and there we have gathered, with joyous friends, the exquisitely lovely Cranberry (*Vaccinium Oxycoc-*

cos), its bright red flowers contrasting with the pearly Sphagnum around it, and the little clustered box-leaved Cowberry (*V. Vitis-idaea*), with its pure white or slightly rose-tinged petals.

Banks of brooks and slow rivers are brightened in June by that universal favourite the Forget-me-Not (*Myosotis palustris*), and sometimes beside it is the kindred species *M. caespitosa*, with smaller flowers and ligulate leaves with appressed white hairs, while those of *M. palustris* are smooth, and the pubescence of the stem, if any, spreading. Much sentimental absurdity has been lavished upon the Forget-me-Not, imported however from Germany, for it is not upon record that any knight in England ever perished in getting it for his lady-love, and clumsy must any one have been to do so. Still, without growing too wild upon such a tempting subject, it may be truly said that this is a chaste and enchantingly delicate flower, sacred to love, friendship, and poesy, in almost every part of Europe. This may have arisen from its affecting those shady and retired localities by the fountain's perennial flow, which are alone grateful to the wanderer at the fervid season when this symbolic azure flower unfolds itself, bright and expansive in the twilight hour on the margin of the lone stream as in the blaze of noon. In this respect, then, it may well typify wakeful affection, and as always growing in wet places, may induce the poetical suggestion, that affectionate remembrance will always *moisten* the eye of sensibility. There are other species of *Myosotis*, or Scorpion-grass, that with almost equal beauty of flower are confined to dry spots, as the *M. Sylvatica*, *M. arvensis*, and the yellow-flowered *M. versicolor*. The racemes of the

true Forget-me-Not are many-flowered, their peduncles as well as the pedicels and calyces thickly covered with close appressed white bristles; the flowers are of an enamelled azure, though pale purple before expansion, with white ribs at the base, where five brilliant yellow nectaries form a golden star, within which the stamens and the pistil are carefully sheltered. A nearly allied plant to this, which grows only in swamps or quaking bogs, with creeping stolons (*M. repens* of Don), was once impressed upon our recollection—for perceiving it blooming in the middle of a bog on the bleak deceptive sides of Plinlimmon, we at once made a dash at it; but received so *cool* a reception from the coy beauty, though our knees had bent before her dripping shrine, that we retired with a very inadequate specimen of the favours she had at first appeared so disposed to offer.

The deep wood has now a train of bright adornments that are more beauteous still within its dark recesses, than if exposed to the full glare of day. On its verge half hidden within the over hanging foliage of the limestone steep, the simulating Bee Orchis (*Ophrys apifera*), hangs its flowers like insects suspended in air, exserting the wondrous tube that imbibes the odoriferous nectar; amidst the shade of the thicket the Butterfly Orchis (*O. chlorantha*), lifts its scented spike of greenish-white flowers with their long horn-like lips; and in the thickest and darkest part of the grove a brown stem may be faintly seen, as if scorched and withered, which on closer inspection is seen to bear pale sulphur flowers, and is the curious *Listera nidus-avis*, or Bird's-nest Orchis. Here, too, but less in the shadow, rise up numerous plants of

the common green Tway-blade (*Listera ovata*), while in some spots, though but rarely, the eye is relieved with the appearance of the bright red clusters of the Wood Hound's-tongue (*Cynoglossum sylvaticum*).

In wilder and more mountainous woods the glades are decorated with the blue flowers of the Woody Crane's-bill (*Geranium sylvaticum*), and the elegant nodding grass *Melica nutans*, occurs in similar spots; in such situations, also, damp and umbrageous, the barren fronds of the Wood Horse-tail (*Equisetum sylvaticum*) spread their compound whorled branches like some fir-tree in miniature, or a grove of palms. A few fertile plants with black terminal catkins may be discerned among them. On all sides here the Enchanter's Nightshade (*Circæa lutetiana*), scatters its slender red spikes and pale flowers widely around, while sheltered in mossy hollows the Winter-Green (*Pyrola rotundifolia et minor*), is here and there revealed by its small drooping round white or rose-tinged blossoms. In favoured tracts such as those of Wyre Forest, Worcestershire, whole glades become white as ermine with the numerous stainless flowers of the Narrow-leaved White Helleborine (*Epipactis ensifolia*).

Meadows on the borders of hilly woods, especially on calcareous soil, now exhibit in various localities the specious pink Saintfoin (*Onobrychis sativa*), shining from afar, and the purple-headed Mountain Milk Vetch (*Astragalus hypoglottis*), as well as the common Yellow Melilot (*Melilotus officinalis*); while limestone banks and quarries present to view the yellow clusters of the Kidney Vetch (*Anthyllis vulneraria*), and the brighter clusters of the Bird's-foot (*Hippo-*

crepis comosa). The small purple *Acinos vulgaris*, may also be noted here.

In the general landscape ere the hay harvest commences, the pastures flash in refulgent spreads of brightness, where the red heads of the Honey-suckle Clover blend into rich mingled tints with the golden yellows of the Butter-cups and Bird's-foot Trefoils, while a bronzed hue prevails where the spikes of the Sorrel (*Rumex acetosa*), stud the field. Composite flowers as *Crepis virens*, and *Hypochæris radicata* arise on every side to add to the bright gilding of the summer scene. The picture is animated by numbers of the Green Forester Moth (*Ino Statices*), fluttering above the grass in great numbers, their rich tinted wings glittering in the sun.

If we trace the river side and the deep bed of the wintry torrent, where now a nearly exhausted rill only oozes, the ground is blue with the little *Veronica Beccabunga*, spreading in dense patches, while proudly erect, the rosy heads of the great Bistort (*Polygonum Bistorta*), are seen in lovely array; and the Meadow Rue (*Thalictrum flavum*), droops its clustered stamens over the yellow Moneywort (*Lysimachia nummularia*). spread over the ground at its feet.

Slowly we now climb the woody cliff that on either hand shadows the bright river, that here smooth as chrystal sleeps in the bright glare of noon, there hurrying o'er the shallows, musically echoes upon the ear. Let us rest in this nook, where umbrageous beeches wave their branches high in air, and the ground forms a rough glaciis from the dismembered rocks that topple far above our heads, where many a golden Hawkweed glows beyond all reach or grasp. Here in the cool





SYMOND'S YAT,

A lofty Limestone Rock on the Banks of the Wye,
Habitat of the *Pyrus Aria*, *Tilia parvifolia*, *Taxus baccata*,
and numerous other trees and plants.

interstices of the rock the Navelwort (*Cotyledon umbilicus*) finds an appropriate home, and fills the crannies with its curious round fleshy leaves and pale campanulate flowers. A host of Ferns and "Maiden hairs," also show their beauteous *fronds*, and the climbing Fumitory (*Corydalis claviculata*) winds its delicate tendrils around in all directions. Here the blue-flowered Sheep's Scabious (*Jasione montana*), spreads about, and many minute plants present themselves, more, indeed, than we shall now stop to enumerate; but the white clusters of the Hairy Rock Cress (*Arabis hirsuta*,) are conspicuous, and the dizzy summit of the precipice is crowned with the garland-like white and dense umbels of the Service-tree (*Pyrus torminalis*).

Many such cliffs may be found, rugged and fortress-like, shadowing the reaches of sandy-bottomed Severn, but still loftier, more rugged and time-toned, beside

"Sylvan Wye, that wanderer through the woods;"

and in my mind's eye the broken masses of millstone grit on the northern flank of Symond's Yat,* forming a magnificent debacle, yet rise before my view. Frightful must the *bare* scene once have been!—but now, romantic beauty has chased desolation away, and

* This is a noble mass of mountain limestone clothed with wood, and connected with the Coldwell rocks on the banks of the Wye below Goodrich Castle. It commands splendid views of the river and adjacent country. The Wye approaches to its eastern base, but unable to break the barrier, makes a circuit of more than six miles ere it returns to bathe its western side. Its eastern end is dangerously precipitous, and it is crowned by scrubby masses of Yew, Whitebeam, Lime, Hawthorn, Hazle, Beech, Oak, Dogwood, Maple, Spindle-tree, Crab, Wytch-Hazle, Holly, &c.—in fact, a natural forest.

the enormous masses of rock that spread exposed along the side of the hill, tufted with tall Beeches, and thicketed with the deep evergreen of Hollies and Yews, are invested by Nature with a charming effect, especially when the declining sun flames its slanting rays upon the scene, throwing the caverns in the rocks into gloomy shadow, while a light breeze exposes the silvery under-surfaces of the foliage of the White-beam tree (*Pyrus Aria*). Lovely, too, are the hues upon those slippen rocks, half way down the hill, that yet cling to the soil in mid air—green Bilberries, Mosses of deeper green, bristling Heath, and Lichens grey, white, and umber, combine to give them tints, contrasting yet harmonious. Oh for another exploration of the shattered rocks of Symond's Yat! The bleached cliffs on either side of the Wye below New Wier are finely fringed with wood, where the dark Yew mixing with the silvery leaves of the Whitebeam has a singular effect. On some broken cliffs almost exactly like the towers of a dismantled fortress, the Yews clothe the ledges with a sable fringe, and produce a very picturesque aspect. In combination with the golden beeches of autumn, forming a continuous robe on the sides of the river and reflected in the tranquil stream, scarcely any thing can be finer or more impressive to the imagination. As few Wye tourists have noticed *the plants that occur in this vicinity*, I shall select a few that present themselves in various spots on the banks of the river, as an incentive to the botanical looker-out to pause on his route.

*Remarkable Plants of the banks of the Wye, between
Symond's Yat and Chepstow.*

Clematis vitalba.—Abundant.

Helleborus viridis.—Western^s side of the river.

Aquilegia vulgaris.—Several spots, and in a truly wild state.

Arabis hirsuta.—On the Windcliff, &c.

Cardamine impatiens.—In profusion on Symond's Yat.

Diploxaxis tenuifolia.—Sandstone cliff, near Ross.

Koniga maritima.—Near Chepstow.

Cochlearia officinalis.—At Chepstow.

Lepidium ruderales.—Ditto, on the Monmouthshire side

Saponaria officinalis.—Plentiful at the New Weir and near Redbrook.

Althæa officinalis.—Below Chepstow.

Tilia parvifolia.—Most abundantly in a large wood extending from Redbrook almost all the way to Big Wier, but mostly pollarded.

Hypericum calycinum.—In a bushy place under the cliff beyond Chepstow Bridge.

H. Androsæmum.—Near Whitechurch.

H. maculatum.—About Goodrich.

H. montanum.—Lancaut Cliffs.

Geranium sanguineum.—Finely adorning Lancaut Cliffs and the Windcliff.

G. lucidum.—Symond's Yat, &c. With white flowers on the Windcliff.

Trifolium scabrum.—At Lancaut.

Anthyllis vulneraria.—In calcareous spots.

Vicia sylvatica.—This elegant plant dangles over the rocks that overhang a sequestered part of the road between the Windcliff and St. Arvans.

Lathyrus sylvestris.

Hippocrepis comosa.—Near Chepstow.

Spiræa filipendula.—In hilly pastures between the Wye and Severn, abundant.

Potentilla argentea.—Lancaut Cliffs.

Rubus suberectus and *Sprengelii*, grow in the woods between New Weir and Hillersland.

R. glandulosus.—Near Landoga Waterfall.

R. pallidus, var. *foliosus*.—A very curious form near Vaga Cottage, Great Doward.

Rosa villosa, *tomentosa*, *inodora*, and *rubiginosa*.

R. micrantha.—At Lancaut.

R. systyla.—On the edge of the wood between Redbrook and Big Weir Bridge.

Pyrus aria.—Beautiful on the cliffs.

P. torminalis.—Not uncommon.

Epilobium angustifolium.—In several spots, but most plentiful at Landoga.

Sedum glaucum and *rupestre*.—On the Chepstow cliffs.

Cotyledon umbilicus.—Various places.

Saxifraga granulata and *tridactylites*.

Apium graveolens.—Near Chepstow.

Oenanthe crocata.—Very fine in many spots, and by the spring near Warre's monument.

Ribes nigrum.—Banks of Wye.

Smyrnium olusatrum.—Chepstow.

Sium angustifolium.

Sambucus nigra, with pretty variegated leaves.

Viburnum lantana.—Plentiful.

Asperula cynanchica, but rare.

Rubia peregrina.—Lancaut Cliffs.

Scabiosa columbaria.—On Symond's Yat, &c.

Erigeron acris.—Near Lancaut.

Inula Conyza.—Rather common.

Artemisia maritima.—About Chepstow.

Antennaria dioica.—Near Coldwell Rocks.

Tanacetum vulgare.

Campanula latifolia and *Trachelium*.

C. patula.—This pretty Bell-flower occurs almost continuously for more than a mile between Redbrook and Big Weir Bridge.

Chlora perfoliata.—Plentifully.

Anchusa sempervirens.—Lancaut.

Hyoscyamus niger.—About Chepstow.

Veronica montana.

Mentha rotundifolia.—Very plentiful.

Origanum vulgare and *Calamintha Nepeta*.

Anagallis cærulea.—Rarely.

Euphorbia platyphylla. — By the road side from Tintern to Chepstow.

Orchis pyramidalis. — Lancaut.

Ophrys apifera. — Cliffs at Chepstow.

Narcissus biflorus. — Near Lancaut.

Melica nutans. — On the Great Doward and Windcliff.

Carex digitata. — Opposite Symond's Yat, and at Lancaut Cliffs.

C. montana. — On the Great Doward.

As will be seen by the above enumeration, the Great Doward, a steep hill between Symond's Yat and Monmouth, and the romantic cliffs of Lancaut, opposite Percefield, are excellent stations for many of the rarer plants affecting limestone; and the Windcliff, near Chepstow, offers a fine scene of botanical beauty, in its winding paths deeply overshadowed with vast grotesque Yews or knotty boled Beeches. From the summit the view of the winding Wye and broad Severn, the craggy Lancaut cliffs, and the extensive flat country, where the sister rivers glide into each other's embraces, is as fine as any prospect where beauty is the chief characteristic. I saw it first in the clear brightness of the morning, but at another visit, when the rays of the declining sun fell with mellow light upon the old castle and town of Chepstow, glanced upon the cliffs of Lancaut, or glared fitfully upon patches of green meadow; the eye relieved by the change of light and shadow gazed upon the scene with greater pleasure, while the hanging woods of Percefield, all in deep gloom, greatly heightened the effect.

The vicinity of Symond's Yat is adorned with several rare *Ferns*, while the commoner ones grow to a greater magnitude than usual in the excavated and shadowy recesses of the Forest of Dean. *Polypodium* *Dryopteris* grows south-east of the rocks of New Wier,

by a path through the woods towards Staunton; and *P. calcareum*, a still more local species, I have observed just within the wood on the side of the path by the Wye between Symond's Yat and New Wier, as well as abundantly among the rocks at Lydbrook. The Scaly Spleenwort (*Ceterach officinarum*), is here most abundant, it covers the old walls of millstone grit about Whitchurch, and between that village and the Wye, occurs on Welch Bicknor church and walls, on rocks near Clearwell, and most profusely on the walls at Chepstow. Not far hence is the sweetly retired village of Clearwell, situated within the precincts of the Forest of Dean, with a broken stone cross in its quiet street of old cottages. Most of these are overgrown with pretty wreaths of the scented *Asplenium* or Maiden-hair; and at a singular mossy excavation at the entrance of the place, called the Pleasure Rocks, the finest fronds of Hart's-tongue (*Scolopendrum vulgare*) and *Aspidium angulare* luxuriate that I ever met with. Some that I gathered here were nearly a yard in length.

The scene is changed! for full in our view, lo, the eternal billows of the ever restless ocean lash the sandy beach in their magnificence of foam and spray. Yet even here is vegetable life, for, wide as the winds spread the sandy inundation from the sea margin, still Flora makes an effort for the resumption of her dominion, and disputes every inch of ground. Though reduced to a pigmy, yet the Burnet Rose blooms most profusely; the Yellow Poppy (*Glaucium luteum*) shows its curious glaucous leaves and specious opening corolla; the Sea Milk-wort (*Glaux maritima*), the Seaside Sandwort (*Arenaria peploides*), the Sea Convol-

vulus (*C. soldanella*), the Sea Spurge (*Euphorbia esula*), all display their various flowers; and the *Eryngo* or Sea Holly forms a beautiful object on the sandy beach, with its prickly blue-veined leaves and dense heads of blue flowers. Thus Creative Beneficence adorns the most sterile spots, and there is something in nature exciting and suggestive wherever we turn our steps.

In another quarter, the raving ocean has rolled a barrier of pebbles, and having thus raised a bar, the fresh waters from the inland hills are dammed up into marshes and morasses. These have their peculiar plants, and show the black heads of the *Schœnus nigricans*, the silvery stems of the *Rhynchospora alba*, the Sea Arrow-grass (*Triglochin maritimum*), and the pretty white flowers of the Brook-weed (*Samolus valerandi*), to say nothing of a host of *Carices* and *Scirpi*, all presenting dense masses of green of various hues, diversified here and there with a single immense flossy head of Cotton-grass. In the deep drains or ditches round the morass the *Utricularia minor* just shows its small golden flower, bright as a passing star through gloomy clouds when stagnant vapours rest on the sullen air. Such appears the scene at Goodick Morass, near Fisguard, and many other such places on the shores of Wales.

But we are now at a rocky headland towering above the surly main, whose breakers hollow its base into a hundred grottoes, caverns, and gullies, whence a hoarse murmur rises upon the ear, broken by the shrieks of gulls and other birds, nestling within their dark confines. Here the silvery flowers of the Sea Chamomile (*Anthemis maritima*), decorate the rocks;

the Lady's finger (*Anthyllis vulneraria*), as if wounded, displays its yellow or faintly sanguine hues; the Squinancy-wort (*Asperula cynanchica*), strews its pale lilac beauties; and on a tottering crag inaccessible to its dominion, the Tree Mallow (*Lavatera arborea*), lifts its dark villous broad-lobed leaves and deep purple flowers, vainly tempting the eye of the too daring Botanical Explorer. Several isolated and lofty limestone crags on the coast of Pembrokeshire, called the Stacks, are crested with this fine maritime plant, and one in particular called the *Elyange Stack*, is covered with it. The scenery at this point is of a sublime character—broken and precipitous rocks, a stormy sea, deep sunken cauldrons, and vast flocks of screaming birds, combine to impress the mind with wonder and awe.

But away from the margin of stormy ocean, we are again upon the mountains—gradually we recede, till the yellow sands alone mark the line of the beach, and not a murmur ascends among the rocks even to the *listening* ear. All is hushed as by a spell; the beetle sweeps by without extracting a single modulation from the unfelt air, and the sun blazes from a sky of azure upon which no vestige of a cloud appears. We turn the angle of a lofty grey promontory, and the sea is hidden altogether:—we are now upon

“The upland ferny braes remote from man;”*

and here a tribe of plants merits our particular notice, though undistinguished by any apparent flowers. These are well known as the FERNS.

To a common eye the frond of a Fern presents the appearance of a leaf generally extremely cut and

* GRAHAME.—*Birds of Scotland*.

divided, or *pinnated*, as the common male and female ferns, and the Brake or Eagle Fern; or with a long entire scaly-stalked green leaf such as the Hart's-tongue, so frequently seen about the mouths of wells, and in other damp spots. The fructification appears for the most part upon the back of the *frond*, and presenting itself all at once about Midsummer, from the unfurling or *circinate* veneration of the plant, was superstitiously supposed to come to perfection only on St. John's night, in each year, at the hour the Baptist was born. Hence it was supposed that if it could be gathered at this time, it would possess many magical properties, and was even reputed to give its possessor the power to walk invisible. SHAKSPEARE has alluded to this superstition in the often quoted passage in his *Henry the Fourth*, Part I.

“ We steal as in a castle, cock-sure ; we have the *receipt of Fern-seede*, we walk invisible.” *

* The old Herbalists and Simplers had many disputes and divers opinions as to the fructification of Ferns. Dr. TURNER, writing in 1560, thus remarks :—“ DIOSCORIDES denyeth that the Ferne hath anye frute, and thereby that it hath also no seede, but not olye the opinion of the commen people is that the Ferne hath seede, but also it is the opinion of a Christien Phisicion, named HIERONYMUS THAGUS, who doth not olye saye that Ferne hath sede, but wrytith that he found upon mydsomer even seede upon Brakes. I have taken out of his Herbal his wordes concernyng that matter, and have translated that into English after this manner followinge. Although that all they that have writen of herbes, have affyrmed and holden that the Brake hath nether sede nor frute : yet have I dyvers times proved the contrarye, which thinge I will testefye here in this place for there sakes that be students in the knowledge of herbes. I have foure yeres together one after another upon the vigill of Saynt John the Baptiste, (which we call in English Midsummer even) soughte for this seede of Brakes upon the nyghte, and in dede I fownde it earlye in the mornynge before the daye brake, the sede was small blacke, and lyke unto poppye. I gatherid it after this maner : I laide shetes and mollen leaves underneath the brakes whiche received the sede, that was by shakynge and beatynge broughte out of the branches and leaves. Many brakes in some places had no sede at all, but in other places agayne a man shall find sede in everye brake, so that a man maye gether a hund-

Although the *modus operandi* of the reproduction of ferns is not entirely so elucidated as to be devoid of obscurity, it may be sufficient here to observe, that these Cryptogamic vegetables spring from seeds or *spores* contained in round capsules or *thecæ*, which are collected upon the frond in linear, oblong, or circular clusters, called *sori*, which, though in some few instances naked, are in most of the species covered with a thin white integument, called an *indusium*, which being disrupted, displays the ripe *thecæ*. Each theca opens at a transverse irregular fissure, and is furnished with a jointed spring nearly surrounding it, whose elasticity causes it to burst and disperse the spores contained within.

The Ferns have been separated into three divisions, of which I shall here only notice the first—the true **FILICALES**. These have their fructification either dorsal, marginal, or in naked clusters, terminating or attached to the frond. The *Polypodiaceæ* and *Hymenophyllaceæ* have rings to their thecæ, but *Osmundaceæ* and *Ophioglossaceæ* have their thecæ without rings.

The Ferns cannot exist in a luxuriant state without moisture; they are, therefore, most numerous in humid and woody countries, or where moisture constantly drips upon shadowy rocks. They abound in the tropical islands and in equinoctial America; but in the sultry land of Egypt where rain scarcely ever falls, only one species is known. They become rare towards the north, for Sweden can only number twenty-seven species, while nearly fifty are found in

red out of one brake alone; but I went aboute this busyness, all figures, conjurynges, saunters, charmes, wytchcrafte and forserves sett a syde, takyng wyth me two or three honest men to bere me companye.”—**TURNER’S Herball**, folio, 2nd Part.

Britain. Being easily preserved and examined, they are a favourite tribe with most botanists, and deserve attentive examination from their exquisite delicacy and beauty in many instances. It has been lately discovered and now abundantly proved that most of the Ferns will flourish luxuriantly in glass jars or boxes, provided with a little moist earth, without any other attention than that of excluding the external air. They may thus be made ornamental accompaniments of the parlour window.*

Ferns do not appear to be of much value in an economical point of view;—the “rheum-purging Polypody,” Moonwort, *Osmunda*, and even *Capillaire*, are, in the present day almost discarded from practice, and except for burning, or as litter for cattle, they excite no attention in the country. Their bitter principle renders them so unpalatable to both man and animals, that they are scarcely at all employed as food, and even insects almost universally neglect them. Let us regard them, then, in our usual way, as elegant objects of natural beauty, and as incentives to botanical ramble. At this season of the year they are in full perfection in the vicinity of their native woods, bogs, and mountains.

The Adder’s-tongue (*Ophioglossum vulgatum*), is a curious little plant, with a single entire frond, about the size of a sorrel-leaf, above which rises a narrow pointed spike of *theca*, which seems to issue from the upright leaf, like the tongue of a serpent quivering beyond its mouth; hence the common name. The vicinity of marshes and low meadows should be examined for this plant, which though not uncommon, is

* See Mr. WARD’S interesting volume on the Growth of Plants in closely glazed cases. 1842.

often overlooked from its being concealed among springing grass, and the heats of summer soon cause it to wither away. The Moonwort (*Botrychium lunaria*), is another curious fern, growing in heathy spots, whose fructification is borne upon a compound spike rising above its pinnate frond. The pinnules of the latter are in fan-shaped pairs, whence the name of Moonwort is derived. Degraded and almost forgotten, its mystic powers gathered when the moon was "walking in her brightness," are now entirely disregarded.

Osmunda regalis is the king of British Ferns. This splendid plant bears several bipinnate fronds, above which the deep brown *sori* rise clustered together in a compound spike of much elegance. In the bogs of Wales king Osmund is very abundant, and I have often viewed it there with high pleasure. It even approaches close to the sea as in Goodick Morass, near Fisguard, Pembrokeshire; Cors Gochno, north of Aberystwith; and very fine near Harlech, as well as between Barmouth and Dolgelle, Merionethshire; in all which places I have gathered it. The rhizoma or root-stock, when cut through, has a whitish centre or core, said by old GERARDE, in his Herbal, to be the heart of OSMUND the waterman. No doubt the "flowering fern" was once honoured as a "plant of power," for Professor BURNET states that *Osmunder* was one of the titles of THOR, the Saxon god of Thunder, while *mund* is well known to denote strength and power. Even now the *Osmunda* is said to possess styptic and astringent qualities.*

* The translator of Dodonæus says—"The harte of the roote of Osmonde is good against squattes and bruises, heaue and greuous falles, and whatever hurte or dislocation soeuer it be." *

The *Hymenophyllaceæ*, or Filmy Ferns, of which two species only are British, must be sought in wet alpine spots, among black dripping rocks, where the clouds are often resting, and continually oozing their moisture among the saturated patches of moss. I gathered the dark and sad looking *Hymenophyllum Wilsoni* in considerable plenty, a few years ago, on the rocks that overhang the roaring Rhyddol, on the opposite side of the torrent at the appalling hollow of Pont Bren, near the Devil's Bridge, Cardiganshire; and since abundantly on the damp rocks above Llyn Cae on Cadir Idris. *H. tunbridgense* grows in the shadowy parts of that most romantic and beautiful dingle called "The Torrents," which every rambler should visit, in the vicinity of Dolgelle, Merionethshire.

The *Polypodiaceæ* are all known from having their fructification in clusters at the back of the frond, which gives them so peculiar an aspect. It is these that form those masses of russet fern, which in the autumnal months gives so mellow a hue to the foreground of forest scenery, and even embrowns the previously purple hills. The flaming autumnal gorse well contrasts with the burnt sienna of the fading brake, and exhibits one of those beautiful artistic harmonies so well known to the student of nature. Every heath and damp alder copse is then strewn with the crisp Eagle Brake (*Pteris aquilina*), the rigid Hard Fern (*Blechnum boreale*), or waves with the deep green fronds of the Great Shield Fern (*Aspidium dilatatum*). Even the driest walls offer a convenient nidus to the Rue-leaved Spleenwort (*Asplenium ruta-muraria*), or to the Scaly Hart's-tongue

(*Grammitis ceterach*). A few are partial to maritime situations, as the *Asplenium lanceolatum*, which is so plentiful on the rocks about Barmouth: while the waving fronds of the Sea Spleenwort (*Asplenium marinum*), decorate the caves of ocean with a classical nereidic foliage. The singularly beautiful Venus's Hair (*Adiantum Capillus-veneris*), is partial to sea cliffs moistened by land springs, and in such places about Ilfracombe, in Devonshire, in deep sequestered coves like White Pebble Bay, and others at the indented base of old Hillsborough, it catches the eye of the Botanical Looker-out in a chain of brilliant verdure often far out of his reach. Nothing can exceed in elegance the fructification of this delicate fern. The numerous fine fibres springing from its roots have the appearance of hair, whence perhaps the common name Venus's Hair.

Other ferns of this division are chained to mountain rocks, there to bear all the vicissitudes of heat and cold, as the Parsley Fern (*Allosorus crispus*), so indicative of an alpine station, and spreading luxuriantly on the secondary slopes of Cadir Idris, Snowdon, and the mountains of Yorkshire and Cumberland. This elegant species, the barren frond of which is of so delicate a green ere it becomes burnt up from exposure, varies much in size according to the altitude it attains. On the Berwyn mountains, near the cataract of Pistill Rhaidwr, it assumes almost a shrubby aspect. In similar mountain habitats, though of very rare occurrence, the Hair-Ferns (*Woodsia*)* take up their abode. The Bladder-ferns

* The rare *Woodsia Ilvensis* grows on the rocks at Falcon Clints, in Teesdale, Yorkshire, as thus noticed by MR. SAMUEL KING, in *A Botanical Excursion in Teesdale*.—"Here [at Falcon Clints] I cast around many

ROCKS OF WHITE-PEBBLE BAY,
Near Ilfracombe, Devonshire,
Habitat of Venus's Hair Fern (*Adiantum Capillus-Veneris*).





(*Cistopteris*,) are a beautiful little family, with their fine cut pinnæ delighting the eye of the botanical explorer wherever they are dragged from their obscure retreats, which are often in the damp shady crevices of rocks among massive stones in mountain ravines where any one but a botanist would think there was nothing but a fox, a rabbit, or a wheatear. There like hermits they meditate in their hidden retreats, and seem to cower from the garish eye of day. Yet occasionally the *C. fragilis* adorns the works of man in wild districts, as on the Devil's Bridge and neighbouring walls near the cataracts of the Monach, Cardigan-shire. The species of these delicate ferns are with difficulty discriminated, since, according to exposure, or shade and moisture, they differ in size from a length of only two inches to twelve or fourteen, and fronds with pinnæ and pinnules of every intermediate

an anxious look for *Woodsia Ilvensis*; at length, after much searching, and a good wetting from the drip of the water from the huge basaltic rocks, to my great joy I espied two small plants, which were instantly secured; a little farther on we saw three more under a bush of *Prunus Padus*, but not liking to destroy the plant, we left the roots of these in the crevice of the rock where they were growing."—*Phytologist*, vol. i. p. 114.

Another botanist, (Mr. S. SIMPSON,) in the same useful periodical, testifies to similar results—the *Woodsia* and a wetting!—"We found our track hemmed in by the overladen Tees on our right hand, and the lofty basaltic rocks, called Falcon Clints, on our left. My eye was now anxiously directed to the face of these rocks to discover, if possible, the chief object in taking our present course—*Woodsia Ilvensis*. Rain now began to fall heavily, and the wind, which had been all day very tempestuous, bore it against us so as to render observation either of locality or objects, very imperfect. However, after tracing as near as I can judge about 400 yards, I espied some small specks of green through the broken fragments of a stream which poured over the Clints, and under which I soon stood, pulling hastily the patches I had seen, and these, to my delight, proved to be two small plants of the *Woodsia*, mixed with a few fronds of *Asplenium viride* and *Cistopteris fragilis*." The *Woodsia*, according to Mr. WILSON, of Warrington, is also found near Llyn y Cwn, on the Glyder Mountain, and *Woodsia hyperborea* on Clogwyn y-Garnedd, Snowdon.

aspect occur. The variety called by Sir J. E. SMITH, *C. angustata*, is exceedingly elegant, and as an extreme form seems at first sight very distinct from the more rigid mountain plant named *C. dentata*. This we once gathered in a wild romantic spot on the banks of the river Teme, near Downton Castle, Herefordshire.

The feather-like Beech-fern (*Polypodium phegopteris*), the tender three-branched Polypody (*P. dryopteris*), as well as the more rigid and taller *P. calcareum*,* generally occur on stony mountains, or by the margins of alpine streams just plunged from a wooded precipice into some black shadowy abyss, hemmed in by crags and ancient trees, immersed in rimy fog; silent, save to the eternal patter of the falling water; horrid with a confused debacle of ruins from the broken cliffs above; and curtained with a triple fold of Stygian shade, where darkness luxuriates even at noon day. In the secluded tracts of North Wales, many scenes may be found like the one here imaged, as at the Raven Waterfall in the vale of Festiniog, and deep within the bed of the river Cynfael in the same glen, where a naked rock towers, called Pulpit Hugh Llwyd, said to have been once the dreaded scene of magical rites and incantations. The beautiful ferns last mentioned may be found at Cil Hepste Waterfall and Pont Henrhyd in the Vale of Neath, and near Bala Lake, as well as about many of the cataracts both in North and South Wales. A scene somewhat similar to the one above depicted is thus

* The somewhat rare *P. calcareum* grows abundantly on the stony declivity of Cleeve-Cloud Hill, one of the Cotteswolds, near Cheltenham. It is well characterized by the stouter and taller rachis, with frond larger, and much stiffer pinnæ than in *P. dryopteris*.

mentioned by GRAHAME, in his "*Birds of Scotland*," which, as true to nature, we shall quote—such romantic pictures give a zest to the labours of the botanist, and rouse his reflective powers.—

"What dreadful cliffs o'erhang this little stream!
 So loftily they tower, that he who looks
 Upward, to view their almost meeting summits,
 Feels sudden giddiness, and instant gasps
 The nearest fragment of the channel rocks,
 Resting his aching eye on some green branch
 That midway down shoots from the crevic'd crag.
 Athwart the narrow chasm fleet flies the rack,
 Each cloud no sooner visible than gone."

It is in romantic solitudes like this that the fragrant "MAIDEN-HAIRS" delight to dwell, decorating the rocks with their slender fronds, and giving a vivid verdure to them, especially if within the reach of oozing moisture or bubbling water-break. In such situations we have often seen and gathered *Asplenium viride*, once singularly covering a fallen mountain ash with verdant tracery in the deep hollow below Pont Henrhyd near Glyn Neath. The fronds of *A. viride* have as the specific name implies green stalks, while the scented but more common *A. trichomanes* have deep purple ones, as is also the case with *A. adiantum-nigrum*, both lovers of rocky lanes, the latter often strikingly variegated with white. The rare Lanceolate Spleenwort (*Asplenium lanceolatum*), has in perfection very finely cut pinnae, forming a verdant object delightful to the exploring eye on the rocks where it vegetates. This local fern is plentiful about Barmouth in Merionethshire, once its undesecrated reign, but now intruding roads have cut through and broken up rocks that had lain untouched from eldest time, and

the sulky Spleenwort still pertinacious to its haunts, exists there, but on the side of the dusty road curls up, and shrinks from view into the deepest crevices, from which it can scarcely be dragged out by the botanist by main force.

The *Athyrium filix-fœmina* or Lady-Fern, is the *Queen of British Ferns*, exquisitely and supereminently tall, delicate, and beautiful. Though by no means uncommon, yet it is only in wild rocky solitudes secluded from the glare of day, soothed by babbling water, and nursed in delicious scented shade, that it attains in perfection, that character entitling it fully to the appellation adverted to. Some years since in a delightful exploration of *Glyn Clydach*, on the borders of Monmouthshire and Breconshire, I gathered some splendid specimens of this description, far superior to the more common varieties, which, when too densely covered with sori, as they often are in open heathy spots, have rather a coarse and inelegant aspect.*

The Glyn is not always explorable, but at this time the stream that waters it was low, and by leaping and climbing from rock to rock, over many a still pool and up many a frothy water-break, our party at last gained its innermost recesses. It was a burning summer's day, and looking up to the mural precipices of mountain limestone on either side, tufted here and there with Yew or daring White-beam above a jutting crag, on to the scanty cleft of blue the opposing cliffs afforded, not a trace of cloud could be noticed upon the sky. We threaded our way on the shadowy side

* A rare and very curious variety of *A. Filix-fœmina* with broad pinnæ, grows in the lake district, near Kendal ; but its habitat is kept strictly secret, as I am informed.

of the rocks, where many a fantastically boled beech lifted its tortuous arms, and wound its briarean roots among the rifted rocks. Still progressing onwards, we paused before a bolder ledge that obstructed our passage, over which twin currents lazily curdled down, and from which a pair of brown Dippers (*Cinclus aquaticus*,) had just emerged. Suddenly a dark cloud curtained the ravine, and a peal of thunder solemnly echoed among the hills. Drops, streams, torrents of rain now poured upon our heads, and we sought shelter in the first concavity we could find. But the silver threads that had just been faintly murmuring within the Glyn were now sullied in their course—they foamed and raged, lashed the rocks hoarsely in their fury, and increasing in magnitude and violence every moment, soon threatened our retreat, and the pleasant prospect presented itself of being washed away specimens and all in the arms of the furious flood, and hurled mercilessly down “the Black Cataract,” which we had left behind us. Fortunately the rain abated, and saved us from this melancholy fate; but the adventure rises before me, in vivid hues, whenever I gaze upon the specimen I gathered here.

As almost every wild rocky lane and moist wood abounds with the *Aspidii*, or Shield Ferns, elegant as some of them are, I shall leave that family for the botanical explorer to develope for himself—no very hard task—and only descant now upon the charms of my favourite *Filix fœmina*.*

* Those who may wish to pursue the subject in detail, and obtain localities for every species or variety, should consult Mr. EDWARD NEWMAN's elegantly illustrated *History of British Ferns*, which is full of interest, general as well as botanical.

THE LADY FERN.

When in splendour and beauty all nature is crown'd,
The Ferns are seen curling half hid on the ground,
But of all the green brackens that rise in the burn,
Commend me alone to the sweet *Lady-Fern*.

Polypodium, indented, stands stiff on the rock,
With his *sori* expos'd to the tempest's rough shock ;
On the wide chilly heath *Aquilina* stands stern,
Not once to be nam'd with the sweet Lady-Fern.

To the rambler who heaths and dark ravines explores,
Northern *Blechnum* appears crouching low on the moors ;
But like a rough savage with manners to learn,
Its rough frond seems a foil to the soft Lady-Fern.

Filix-mas, in a circle, lifts up his green fronds,
And the Heath-fern* delights by the bogs and the ponds ;
Through their crisp scented tufts though with pleasure I turn,
The palm must still rest with the fresh Lady-Fern.

By the fountain I see her, just sprung into sight,
Frail her texture, and bent as though shiv'ring with fright ;
To the water she shrinks—I can scarcely discern
In the deep humid shadows the pale Lady-Fern.

Where the water is pouring for ever she sits,
And beside her the Ouzel and Kingfisher flits ;
There, supreme in her beauty, beside the full urn,
In the shade of the rocks droops the tall Lady-Fern.

If sweeter the *Maiden-Hair*† scents to the gale,
If taller King Osmund's ‡ crown'd glories prevail,
Though darker Sea Spleenwort, well pleas'd I return
To the thicket that shelters the fair Lady-Fern.

Her delicate pinnæ there droop in the shade,
By whispering Aspens and Wood Vetches made ;
In the pattering ravine there stands one grey Fern §
Embower'd in the fronds of the tall Lady-Fern.

* *Aspidium Oreopteris*. † *Asplenium trichomanes*.

‡ *Osmunda regalis*, the "Flowering Fern."

§ The common name of the Heron.

Noon burns up the mountain—but here by the fall
The Lady-Fern flourishes graceful and tall;
Hours speed as thoughts rise without any concern,
And float like the spray gliding past the green Fern.

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WILD FLOWERS OF JUNE.

(CONTINUED.)

CHAP. XIII.

FLOWERY SIMILES ADAPTED TO USE.—ADVENTURE ON THE BRECON MOUNTAIN.—RAMBLE IN GLYN NEATH.—THE POPPY ANNOUNCES THE APPROACH OF THE SOLSTITIAL FLORALIA.—THE YELLOW IRIS AND OTHER ATTENDANT FLOWERS.—GRASSES OF VARIOUS KINDS.—LEGENDARY AND BOTANICAL ACCOUNT OF THE ROSE — ITS SPECIES AND VARIETIES—SYMBOLS AND SENTIMENTS CONNECTED WITH THE SUBJECT.—SYNOPSIS OF THE BRITISH SPECIES OF ROSE.

“ I dreamt that at even a white mist arose
Where the hedge-row Brambles twist ;—
I thought that my love was a sweet wild Rose
And I the silvery mist !

I dreamt that my love was a sweet wild Pea
All cover'd with purple bloom ;
And I, methought, was an amorous bee
That lov'd the rich perfume.

Again—I was where the moon did line
The forest with silver bright ;—
I thought that my love was a wild woodbine
And I—a zephyr light.”

ANON.

Flowery similes have ever been eagerly appropriated by the poet in every age, and the anonymous bard just quoted is not deficient in boldness of idea. Why should not the Botanical Explorator who of

course ought to be awake to every thing that the use of flowers in season or out of season may by possibility command, take advantage of them? At this dreamy season they may rouse the imagination, and come in not inappropriately; for as an old author says—

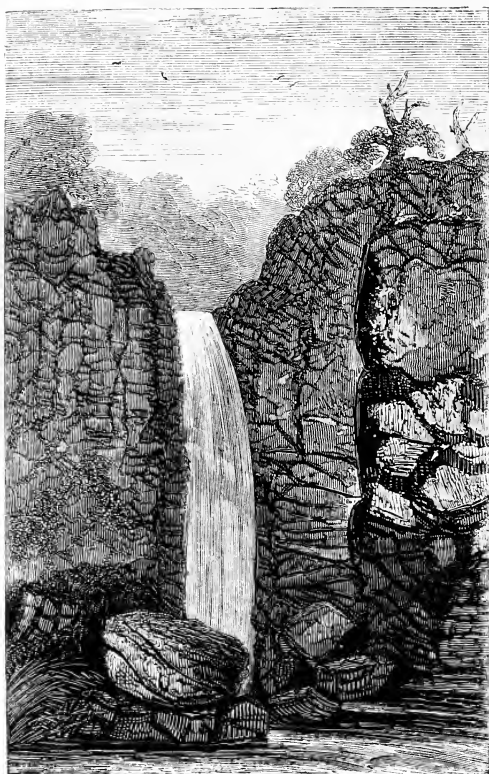
“ I cannot tell how others fancies stand,
But I rejoice sometimes to take in hand,
The *simile* of that I love.”

So for the nonce be it so—in dreamy luxuriance we may rest awhile, canopied in honeysuckle bowers, odours from white clover fields saturating the air around us, as gleamy lights break in upon the sighing foliage surrounding our retreat, while in imagination “the silvery mist” leads us to lily-covered lakes embosomed in mountains; or the light zephyr wafts us deep into rocky solitudes, where by the side of bogs and splashing mountain streams, as at Can Coed by the young Severn’s rapid stream, near Llanidloes, we have in past happy excursions gathered the fair Globe-flower (*Trollius Europæus*), in companionship with the Yellow Kingspear (*Narthecium ossifragum*), the blue Pinguicula, *Scutellaria minor*, and the lowly drooping but silvery glistening *Hypericum elodes*. To such an inspiring spot, to the lofty Brithen’s rocky flanks carpeted with the rich purple spikes of *Veronica hybrida*, or upon the Glyder’s awful misty peaks brightened with the fugacious-petalled Cambrian Poppy, thankful should we be to some light zephyr to waft us again—with a return ticket! For in actual exploration although the botanist may *wander* like an “amorous bee,” he can only take *fanciful* flights, and eminences where rare plants grow must be visited and

scaled not without risk of life or limb, and long distances must be painfully trodden, not uncommonly (as it has been oft our lot to experience) amidst torrents of rain.

I had rather a dangerous adventure some years since, on the summit of the Brecon Van mountain. While on the peak, I observed a tuft of white flowers some little distance down the precipitous side which descends perpendicularly in one unbroken cliff many hundred feet. I was alone, and the plant lay too far beyond my reach either to gather it or to ascertain with certainty what the species was. Unwilling, however, to retreat without it, I looked about for some means to effect my object. I found a stick left by some guide or former traveller, and planting this firmly in a crevice of the rock, I used it with one hand, while I sought support farther below with my umbrella on the other. A slight projection gave me a resting-place for my foot, and thus cautiously descending, I got within reach of the desired plant. I had just seized a portion of its flowers in my hand, when the crumbling sandstone I was trusting to gave way, splintered into pieces, and plunged thundering far below; and had I not at the moment immediately sprung upwards and caught the fixed stick, I must have fallen myself and doubtless been dashed to pieces without the possibility of escape. Safe back again upon the summit, I yet trembled nervously for some minutes afterwards, and shrunk instinctively from the edge of the precipice.—Even Botany is not without its incidents. From this lofty but dangerous spot, two persons from Brecon, not very long after my visit, fell in a mysterious manner never fully explained,





S.W.

MELINCOURT WATERFALL,
Glyn Neath, Glamorganshire,
Habitat of *Asplenium viride*, *Hymenophyllum Tunbridgense*, &c.

after ascending the mountain, and were both killed upon the spot. The plant for which I had thus endangered existence, proved after all to be only *Silene maritima*, one of those coast plants which like the Sea Pink (*Statice Armeria*), and the Scurvy-grass, are found growing as well upon lofty mountain rocks as upon the sea shore. In descending the Van I found, however, beautiful specimens of *Saxifraga hypnoides* and *Lycopodium alpinum*.

Thus the exploring Botanical Looker-out does in fact wander with the mist and the zephyr, and in his researches outdoes the flower-loving bee itself. How oft have we been led thus to wander on heathy hills and cloud-capt summits, roaming with the devious stream, lost in verdant thickets, or immersed in the spray of roaring water-falls. How oft have the glens of Wales received us, and charmed our wayward footsteps. Several times have we explored the beauteous recesses of Glyn Neath, when thickets of roses embowered our path, their petals of that deep red which renders the Welch roses so eminently beautiful; or amidst tall rank plants of *Ænanthe crocata*, stood by the cascade of Melincourt, thoughtful and happy. Above our heads a black sullen trunk with leafless arms stood spectre-like on the rock, and the patter of the water as it splashed and fell amidst enormous boulders dashed a cloud of rime on all the trees around.* This was my first visit to the falls about the valley, when being alone, and finding out the localities with difficulty, in getting on by Pont Nedd Vechan to the cataract of Scwd-Inon-Gam, or the Crooked Fall, I

* At this picturesque waterfall the pretty filmy-fern *Hymenophyllum Tunbridgensense* grows, and other rare plants may be found in the vicinity. Somewhere in Glyn Neath I gathered *Potentilla alpestris*.

got many a wetting in crossing the river where the rude stepping stones had become immersed by a rise of the water from recent rains. Here was the white-flowered *Rubus suberectus* so abundant in Wales, the Globe-flower, and the Water-avens, while ferns appeared in abundance, and none more elegant and luxuriant than *Polypodium phegopteris*. In ascending the precipitous rock that bars further passage at Scwd Einon Gam I felt rewarded in finding on the dripping strata abundance of *Narthecium* in full flower, and the cottony purple-flowered bog-thistle, *Cnicus pratensis*. On the heath above grew the soft white and elegant Mountain Cudweed (*Antennaria dioica*), very plentifully.

The last ramble we took in Glyn Neath, was a very delightful one, in company with two enthusiastic friends, when the *Rubi* called for our most particular attention, though we gathered many other plants. *Rubus corylifolius* (*R. sublustris*, Lees,) grows excessively fine and large upon the side of the river Mellte. We first progressed from the Lamb and Flag Inn to the Lady's Waterfall, on the river Purthin, near to which, and close to the Logan Stone, we noticed plenty of *Rubus suberectus*, as well as on the ascent from Einon Gam. The romantic boiling and foaming falls of the Little Cil Hepste, fringed and half hidden in wood, are delightful to contemplate. Here we paused, on the verge of a ravine into which the waters madly plunge, deeply embowered in the foliage of the small-leaved Lime (*Tilia parvifolia*), which here has every appearance of being a true native of the district. One distorted old lime jutting out of the rock and densely covered with ivy, was a remarkable object.

Onward by the side of the stream through dense thickets and hemmed in by gloomy heights we progressed to the Upper Hepste Falls, here the waters of the Hepste gathering the mountain streams together, plunge over the slate rocks with loud acclaim into profound woody ravines deepened by the wear and tear of ages. The water here precipitates itself in five divisions of beauty-columns, which, however, superficially unite in one showery mass of chrystal spangles, dashing with eternal motion, like the joys of life, down the slippery rock that vainly offers to detain them within its intricate crannies—gleaming for a moment in iridescent lustre, till the instantly succeeding leap, reverberated by the rocks around, records their passage into the sullen shadows that for ever conceal them from view. Ere we left the spot a sunset radiance broke finely upon the hurrying waters.

Many moisture loving plants adorn the wet rocks about the Hepste water-fall and their vicinity, among which, not the least beautiful, is the bright green *Asplenium viride*, and the palm-like Wood Horsetail (*Equisetum sylvaticum*). On the lofty rock called *Craig-y-dinas*, farther down the glyn and near Pont-nedd-vechan, overlooking a deep dingle half choaked up with shapeless masses of stone, a considerable quantity of *Arabis hirsuta* grows, and on the summit among the broken remains of a Druidical circle the little fern *Cistopteris dentata*, growing very stiff, and covered with sori.

The next morning we walked over the Banwen Mountain to Pont Henrhyd, passing in our way an extensive bog called Gors Lwm, beautifully adorned with *Orchis latifolia* finer than usual, prettily sprink-

led with the tall pubescent Cotton-grass (*Eriophorum pubescens*, Smith,) and covered with the shrubby and fragrant sweet Myrtle (*Myrica Gale*). In the same vicinity but in drier meadow spots was a good deal of the Whorled Caraway (*Carum verticillatum*). It was a burning morning, and fatiguing work ascending the barren mountains, so that long ere we reached Pont Henrhyd we were glad to shelter in a neat Welch cottage and refresh ourselves with milk. The little bridge over the torrent is rather pretty, and a short distance below it the stream plunges into a deep chasm hemmed in by wooded precipices not easily descended. With some difficulty we got down into the ravine, gathering in our way *Rubus saxatilis*, and finer specimens of *Polypodium phegopteris* than previously seen. An old overturned mountain-ash trunk lay in the glen most elegantly wreathed with *Aspidium viride*, seldom seen except on rocks.

On leaving Scwd-yr-Henrhyd, an incident subjected us to some little difficulty, for a Welchman, from Glyn Neath, whom we had engaged to carry baggage, finding we were resolved to proceed direct towards Swansea, turned restive, and would go no farther, so we were obliged to become our own camels. This on a burning summer's day lessened our pace, but fortunately when almost tired out we happened to pass by the mansion of a hospitable gentleman who invited us to his board, and with whom we spent an evening long to be remembered. But we consequently did not reach Neath until past midnight, and had some difficulty in procuring accommodation at that time. Another day of botanical research led us by the Neath Canal, Britton Ferry, and across Cromlyn Burrows;

and Morass, localities celebrated in botanical story, where we gathered many interesting plants.

Cromlyn Burrows extend for some miles along the coast, and bounding them inland is a great morass intersected with drains and pools covered with the white-water lily and the great Spearwort (*Ranunculus lingua*). A canal now cuts through the morass amidst reeds and tall aquatics, and the view from near the sea over the bogs towards the hills of the coal formation beyond is of a peculiar description. A river intervenes between the Burrows and Swansea, and a wilder tract or one from its very nature more diversified in aspect — salt-water, sand, marsh, bog, and morass, the naturalist need not desire. Here we spent a considerable time in botanical exploration, and the following plants occurred—a mere selection from numerous others growing at the spot.*

Ranunculus lingua, most splendid in Cromlyn Morass.

Nymphæa alba, covering the pools in Cromlyn, its large leaves matting over and hiding the water.

Meconopsis Cambrica. In Glyn Neath, above Pont Nedd Vechan.

Glaucium luteum. On the shore of the Burrows, profusely.

Potentilla alpestris. Rocky places in Glyn Neath.

Sisymbrium Sophia. On the beach near Swansea Ferry.

Senebiera didyma. Plentiful, even in Swansea streets.

Lepidium latifolium. By the side of Neath Canal, not far from Britton Ferry.

Cochlearia officinalis. About the shore in various places.

Cakile maritima. Frequently on the Burrows. A rigid wiry and tortuous fleshy plant, with deep green polished very hard stem, purple flowers, and smooth green silicles.

Diplotaxis tennifolia. On the sandy burrows.

* Mr. DILLWYN, the well known author of *British Confervæ*, has pleasantly illustrated the Natural History of Swansea in his publications; and J. W. G. GUTCH, Esq. has published a copious list of its plants in the *Phytologist*.

- Diploaxis muralis*. On the beach among sand hills.
Drosera rotundifolia and *longifolia*. Cromlyn Bog.
Hypericum maculatum. Pont Nedd Vechan.
Oenothera biennis. In great profusion near Britton Ferry.
Cicuta virosa. In ditches between Neath River and the Canal.
Oenanthe Lachenalii. Boggy spots on Cromlyn Burrows.
Aster tripolium. Sea Starwort. Muddy shores of the river.
Erigeron acre. Cromlyn Burrows.
Verbascum nigrum. Conspicuous near Britton Ferry.
Veronica montana. Glyn Neath, near the Lamb and Flag.
Verbena officinalis. In great quantities near Britton Ferry Church-yard.
Origanum vulgare. Near Britton Church, in a hedge.
Erodium cicutarium, var. *album et purpureum*. Cromlyn Burrows.
Lysimachia vulgaris. Near Neath.
Alisma ranunculoides. Remarkable for its proliferous umbels. Borders of Cromlyn Morass, near the Canal.
Samolus Valerandi. In shallow water on the Burrows.
Typha latifolia and *angustifolia*. In Cromlyn Morass abundantly, forming a fine feature with their tall waving ribband-like leaves.
Cladium Mariscus. Near Cromlyn Canal.
Eriophorum angustifolium. Cromlyn Bog.

But we must digress no farther on excursion's wing, but returning to quiet home scenes, like Uriel on a sunbeam, or as the author we have quoted suggests—gliding on the silvery mist;—we look out on the summer landscape, where glowing before us in full glory and beauty, expands the SOLSTITIAL FLORA,—the indubitable offspring of increased temperature, and we must “gather the roses ere they be withered.”

Scarcely has the sun of June arisen, in favourable years, than a very remarkable change is perceptible in the flowers of the woods, meadows, and gardens. The

flaming Poppy* is the first to announce the approach of the Summer solstice, by the display of its scarlet banner, and the red Lychnis (*L. flos-cuculi*), quickly follows in damp places, with its ragged pink petals, from whence it is commonly called "Ragged Robin." Next the yellow specious flowers of the common Flag (*Iris pseudacorus*), glitter in the marsh, where generally at this time many splendid blueish-green Dragonflies (*Agrion virgo*), are fluttering; and conspicuous in the golden meadows, towering above the masses of sweet Honeysuckle-Clover, appears the Great Summer Daisy (*Chrysanthemum leucanthemum*).† The purplish-blue flowers of the Meadow Cranes-bill (*Geranium pratense*), are now very obvious amidst woody or river-side pastures, with several others of the same tribe; and the bright yellow heads of the Bird's-foot Trefoil (*Lotus corniculatus*), often tinged with light red or crimson, greatly contribute to ornament the scene. A wet gully or tinkling rill, may often, at this time, be traced along the whole extent of a field by a line of the sweet-scented Meadow Dropwort (*Spiræa ulmaria*), whose cream-coloured panicles are now becoming every-where visible. The Great Valerian (*V. officinalis*), fringes woods in a similar manner.

For those botanists who desire to study GRASSES, this is the opportunity to inspect them in their full perfection, as their stamens and coloured farina present themselves to view. At least thirty-five genera, and about one hundred and twenty-five species, are

* The light-red *Papaver argemone*, distinguished by its long hairy capsule, blows earliest; the specious *Rhæas* is rather later, as well as *P. dubium*.

† This is generally called the "Midsummer Daisy," though in fact it comes into flower in May, and is abundant the first week in June.

natives of this country. Although their want of petaloid colorific beauty renders them too often neglected, yet, surely that is made up in the elegance exhibited by their panicles; while their utility to man and animals gives them a value which no other tribe of plants can with the same justice lay claim to—for from hence is derived the “staff of life.” Indeed, when we reflect upon the sheep, oxen, &c. fattened in luxuriant pastures, whose flesh makes up when consumed so great a portion of our nutriment, if flesh eaters are not exactly and literally vegetarians, yet, as Professor BURNETT tersely and truly says, they are in fact living upon “grasses in disguise,”—only in fact a little more elaborated. Even as far as beauty is concerned, the Feather-grass (*Stipa pennata*), the Silver Hair-grass, and others of the genus *Aira*, the elegant paniced *Agrosti*, and the common Reed, whether in its early purple or late feathery aspect, the Mountain Melic-Grass (*Melica nutans*), the Hair’s-tail Grass (*Lagurus ovatus*), and the Wood Reed (*Calamagrostis Epiphejos*), are not to be despised;—while the common Quaking-Grass (*Briza media*), charms even the humblest rustics, who gather it to adorn the mantels of their little thatched cottages. *Briza minor* is still more elegant.

It is interesting to watch the progress of a meadow from its emergence from the snowy mantle of winter, until waving in full luxuriance its matured grasses yield before the fatal scythe. First the daisy is seen decking the pasture with silver stars, that in some spots become dense as a white cloud, Then in some places dandelions gild the rising grass, or in others cuckoo-flowers form beautiful but transient silver

islets soon lost, overpowered at length by the rapidly growing grass, whitened here and there by the clocks or feathery globes of the dandelions. Then follow the Buttercups that rapidly cover the whole field and make it one mass of vegetable gold, gorgeous for the eye to repose upon. By degrees this lustre is softened down by the Sorrels, whose pink sepals intermix and blend with the buttercups; then finally the grey heads of the foxtail and other grasses take entire possession of the scene—the gold vanishes away, the wind blows coldly over the meadow, displaying only the fading culmiferous pallid grasses, now ripe and ready for the hay-harvest.

Summer is now fully come, for long desired, at last appears in its multiform varieties and exuberant fragrance, the *Queen of Flowers*—

“ Resplendent ROSE, the flower of flowers,
Whose breath perfumes Olympus bowers;
Whose virgin blush of chasten'd dye
Enchants so much our mortal eye.

* * * * *

Oh! there is naught in nature bright,
Where *Roses* do not shed their light.”

The very sight, or even the name of the *Rose*, is sufficient to raise our temperature to the poetical point, and recall a hundred legends and fables relative to this universal favourite, from its colour being derived from the blood of Adonis, down to the “*Rosamundi*,”* and Wars of the Roses, of our own history.

“ *Warwick*. I pluck this *white* rose with Plantagenet.

Suffolk. I pluck this *red* rose with young Somerset.”

SHAKESPEAR, Hen. VI.

* Literally, flower of the world; hence the play of words on the inscription to Fair Rosamond—“*Rosamundi non Rosamunda*.”

The Rose being the emblematical flower of England, as the Thistle is of Scotland, the Leek of Wales, and the Trefoil or Shamrock of Ireland, it may be interesting to dilate upon it in some degree,—popularly, historically, and botanically.

The Rose has ever been the favourite theme of apologue—its *flowers* emblematical of the short-lived pleasures of life—its *thorns* of the ever accompanying adversities; hence, when the late Nabob of the Carnatic addressed Lord CLIVE on the injuries and insults he had received from the English in India, he drew a parallel between himself and a husbandman who had suffered strangers to enter his garden, and thus poetically summed up the melancholy detail—"The flowers of the Rose have fallen, and the stalk, with all its thorns, alone remains in my hand." A rose *without* thorns could formerly scarcely be imagined; and thus MILTON, to depict the superior ambrosial pleasures afforded by Eden, makes it abound with

"Flowers of all hue, and *without thorn*, the Rose;"

but in the present day many thornless species of rose have been discovered, and decorate earthly paradises, while instead of only one rose season, there are now *ever-blooming* Roses, forming a perpetual garden of sweetness throughout the year.

Before scientific botany gave precision to floral language it was difficult to describe the parts of a flower intelligibly, and thus VIRGIL has applied the term leaves as well to the foliage as the petals of plants, creating some confusion. Our English DRAYTON, in like manner, though a faithful observer of nature, and a good describer too, yet being no botanist, and not finding a word suitable to his purpose in use, calls the

stamens of the rose “yellows” in the following pretty lines of his “*Fairy Wedding*.”—

“ I think for her I have a tire
That all fairies shall admire ;
The yellows in the full-blown Rose,
Which in the top it doth enclose,
Like drops of gold ore shall be hung
Upon her tresses.”

A curious fact in the structure of the corolla of the rose—that the five sepals of its pitcher-shaped calyx have a particular arrangement, gave rise to an old monkish enigma, implying the popular attention given to the circumstance. We thus translate the rhyming latin:—

Five brothers take their stand,
Born to the same command ;
Two darkly bearded frown,
Two without beards are known ;
And one sustains with equal pride
His odd appendage on one side !

If all enigmas like this induced the examination of a plant, they would not be so excessively stupid, or *given up* so readily as they usually are. In this case the “five brothers” are the five sepals of the calyx of the rose, where usually two are fully pinnate or *bearded* throughout, two are simple or *beardless*, and one is pinnate on one side only. This may be verified by reference to a dog-rose in any hedge, but it hardly applies to the Chinese or Indian roses.

In the East, roses have been ever especial favourites from the earliest times ; beds of roses are no poetical figure there ; and in Persia, according to Sir R. KER PORTER, every garden and court is crowded with its plants ; every room is fragrant with ever-replenished

vases of them, while full-blown flowers strew every bath; and in the delicious gardens of Negauristan, the eye and the smell are not only regaled by the most beautiful and fragrant roses, but the ear is enchanted with the warblings of multitudes of nightingales, whose notes seem to increase in melody and softness with the unfolding of their favourite flowers. According to a recent traveller in Persia, the celebrated Roses of Shiraz are all single — *R. Damascena*, and *R. moschata*, var. *arborea*.

FATHER CATRON, in his "*History of the Mogul Empire*," thus accounts for the origin of the celebrated Otto or Attar of Roses, now so esteemed as an indispensable appendage to a lady's boudoir. It appears that the PRINCESS NOURMAHAL, in the true style of eastern voluptuousness, once filled an entire canal with rose-water, upon which she made frequent sailing excursions in company with the GREAT MOGUL. The heat of the sun causing the disengagement of the essential oil from the rose-water, it was observed floating upon the surface, and thus was made the discovery of the essence of roses. Near Damascus is the famous plain of roses, solely dedicated to the making of the Attar or Uttr, which, for some miles, is thickly planted with rose trees, of which great care is taken. This "*Uttr*," is the most remarkable of all the preparations from the flower, and has the consistence of butter, becoming liquid only in the very hottest weather. It is made almost in the way indicated by its accidental discovery, only that the rose-petals are put into a wooden vessel with pure water, first exposed to a powerful heat which forces the oil to the surface, when it is gathered, and then congealed by cold: but

so tedious is the manufacture of any quantity, that half a drachm of the Uttr can scarcely be obtained from a hundred pounds of rose petals.* The scent of the minutest grain of the genuine essence, is however, very powerful.

A French author who has written a work on the "*Histoire Naturelle de la Rose*," lauds it as "l'ornement de la terre, l'éclat des plantes, l'œil des fleurs, l'email des prairies, une beauté élatante ; elle exhale l'amour, elle attire et fixe Venus ; toutes ses feuilles sont charmantes, son bouton vermeil s'entr'ouvre avec une grâce infinie, et sourit délicieusement aux zephyrs amoureux. — De tout temps cette charmante fleur fut le sujet des idées le plus flatteuses, des comparaisons les plus douces, et des emblèmes les plus voluptueux." So that as he truly observes—"Le nom seul de la rose réveille dans notre ame tant d'idées agréables, d'images intéressantes, de comparaisons aimables, de souvenirs délicieux, qu'on aurait pu accuser l'auteur d'un défaut de goût, s'il n'avait pas rappelé à ses lecteurs les vers immortels que la rose inspira aux Sapho, aux Anacreon et à tant d'autres poètes anciens ou modernes, dont le nom ne périra jamais." A few *roseate ideas* and interesting observances connected with the rose, can

* A traveller in Cashmere thus describes the manufacture of this precious essence, which he says GHOLAB SINGH has absorbed into his own hands—"Uttr, and not Otto, is the proper term. The rose-leaves, carefully picked and fresh, are boiled in a large copper vessel, with a little water, and the steam arising is condensed in a still. This forms the rose-water, it is distilled three times, and then placed in an earthen vessel during the night in a stream of running water. In the morning the Uttr is found floating in small globules on the surface of the rose-water. It takes five hundred weight of rose petals to produce one drachm by weight of the best Uttr, it is however seldom procurable unadulterated, and that sold in the bazaars of India owes its scent mainly to sandal-wood, from which a cheap oil is easily procured. The best Uttr is preserved in small bottles made of rock chrystal."—*Lit. Gaz.* Jan. 1850.

scarcely then be avoided, with the name upon our lips and the bright perfumed flower in our view. Summer has her lap now full of garlands, and we may say with Persius—

“Quidquid calcaverat hic, rosa fiat!”

So let poetical roses ornament our present path.

In an odour-breathing little volume entitled “*Memoirs of the Rose*,” it is observed—“The Rose, you are aware, is not only the flower of love and the emblem of beauty, but is also considered the symbol of *secrecy*. A kiss is often taken and allowed ‘*under the Rose*.’* A belief that two young companions have become lovers is a suspicion whispered—‘*under the Rose*.’ The certainty of arrangements for an intended marriage often transpires — ‘*under the Rose*,’ and whenever I greet the full-blown impression of your exquisitely engraven seal, with its appropriate motto ‘Sub-Rosa,’ I always anticipate beneath it, if not a poetical kiss or a lover’s secret, yet expressions of kindness and feelings of friendship, which are sacred and inviolate.”

As to the origin of this secrecy, “under the Rose,” mythological legend states that Cupid, on some occasion, bribed Harpocrates to silence by the present of a Rose (a golden effigy of one it is to be presumed); and hence, at banquets, it was formerly the custom to suspend a Rose over the table, as a hint that things might transpire over the convivial board not to be repeated elsewhere. The Rose was always considered a mystical emblem of the Catholic Church, probably

* None but a cynic, forgetful of life’s early flowers, can object to this, and it forms the undisputed privilege of a “Botanical Looker-out,” who, with his red Rose at Midsummer, and Mistletoe at Christmas, may be fairly engaged at all seasons.

from the mention of the "Rose of Sharon" in Scripture; and there was formerly a ceremonial of blessing the rose at Rome, on a day denominated "Dominica in Rosa," on which occasion golden roses prepared for the occasion received the benediction of the Pope, and were then sent to the princes of Christendom as marks of high distinction. The Rose was a very common ornament in Gothic architecture, and, as a badge of royal houses, is frequently seen in old stained glass. Lands have been frequently held from a feudal superior by the acknowledgment of a rose at Christmas, which in mediæval times was not so easily procurable as it is at present, nor at so low a rate; for it appears by a MS. in the Remembrance Office, signed by King Henry the 7th, that in his reign a red rose actually cost two shillings—a considerable sum at that time.

The Romans delighted in their amphoræ being garlanded with roses at their banquets, and being themselves crowned with their flowers, so that the great demand for them required roses to be cultivated to blow as well in winter as in summer. This surprised the Egyptian deputation, who arrived at Rome during the reign of Augustus, with bouquets of roses for the emperor at Midwinter. But they found plenty of roses in full bloom at Rome, and MARTIAL, who alludes to the circumstance in one of his odes, says that the streets of Rome at that time were so brilliant with garlands of fresh roses, that they equalled the glory of the fields of the Pæstum, famous of old for their twice flowering roses. "Thou, O Nile!" says the poet, "must yield to the fogs of Rome. Send *us* thy harvests, and we will send *thee* roses." So might

Britain almost say at the present time, so numerous are the groups, forms, and varieties of roses now in cultivation.

“What were life without its rose?”

A very brief botanical reference to the numerous species and varieties of Roses must here suffice, more especially when in fact the different supposed species so approximate to each other, that it is often difficult to draw the line of distinction between them; and LINNÆUS was of opinion that nature herself had, in this genus, prescribed no certain limits. The lovers of Roses may, however consult Dr. LINDLEY'S celebrated Monograph on the genus; Miss LAWRENCE'S work, where ninety kinds are figured; the various Floras, where they are enumerated; LOUDON'S *Arboretum*; or the splendid French work of M. REDOUTE, containing descriptions of eight hundred various kinds. More than that number are now cultivated in England in the various nurseries; and, according to M. DESPORTES, the French can boast no less than 2,533 named varieties.* LOUDON has, however, only

* The curious and whimsical names imposed by cultivators upon the constantly increasing varieties of roses, is thus descanted upon by Mr. DOWNING, in the *Horticulturist*, a transatlantic publication.—“Undoubtedly there is an *embarrass de richesses* in the multitude of beautiful varieties that compose the groups and subdivisions of the rose family. So many lovely forms and colours are there dazzling the eye and attracting the senses, that it requires a man or woman of nerve as well as taste to decide and select. Some of the great rose-growers continually try to confuse the poor amateur by their long catalogues, and by their advertisements about ‘acres of roses.’ Mr. PAUL, an English nurseryman, published, in June last, that he had 70,000 plants in bloom at once. This is puzzling enough, even to one who has his eyes wide open, and the sorts in full blaze of beauty before them. What, then, must be the quandary in which the novice not yet introduced into the aristocracy of roses, whose knowledge only goes up to a ‘cabbage rose,’ or a ‘maiden's blush,’ and who has in his hand a long list of some great collector—what, we say, must be his perplexity when he suddenly finds himself amidst all the

particularly described seventy-seven kinds in his *Hortus*, but then many of these include multifarious varieties.

The late Professor DON has given descriptions of 205 supposed distinct species of roses in his *General System of Gardening and Botany*;—he says, “Botanists are not agreed as to the number of original species of this genus, and, notwithstanding the labours of many scientific men, the genus still remains a chaos, from which it can never be extricated.” He further remarks, that “Varieties are raised from seed on the continent, where the seed ripens better than in this country. New varieties are raised in France and Italy annually. M. L. VILLARESI, royal gardener at Monza, has raised upwards of fifty varieties of *R. Indica*, some of them are quite black, and many of them highly odoriferous.” The *Centifolia* group, including the Damask, Province, and French roses, has always been most esteemed; this comprises the favourite Moss Roses, dark, white, striped, and crested. The yellow Eglantine Rose (*Rosa lutea*), makes a conspicuous show in gardens, as well as its fiery variety *sub-rubra*, while the modest Sweet-briar is familiar to every body from the grateful scent of its

renowned names of old and new worlds’ history, all the aristocrats and republican heroes and heroines of past and present times—Napoleon, Prince Esterhazy, Tippo Saib, Semiramis, Duchess of Sutherland, Princess Clementine, with occasionally such touches of sentiment from the French rose-growers as *Souvenir d’un Ami*, or *Nid d’Amour* (nest of love), &c. In this whirlpool of rank, fashion, and sentiment, the poor novice rose-hunter is likely enough to be quite wrecked; and instead of looking out for a *perfect rose*, it is a thousand to one that he finds himself confused amid the names of princes, princesses, and lovely duchesses, a vivid picture of whose charms rises to his imagination as he reads the brief words ‘pale flesh, wax-like, superb,’ or ‘large, perfect form, beautiful,’ or ‘pale blush, very pretty,’ so that it is ten to one that duchesses, not roses, are all the while at the bottom of his imagination!”

leaves. The Chinese Roses (*R. indica et semperflorens*), have been extensively cultivated in the present day, from their hardiness and long continuance in flower, and are now to be seen in almost every garden. The "Tea-Roses," as they are called, are exquisite in their way. *Rosa Banksiæ*, or LADY BANKS'S Rose, distinguished by its long graceful climbing shoots and unarmed branches, is a beautiful shrub; its pale yellow or white flowers are drooping, numerous, small, round, and very double, on long peduncles, resembling in form those of the double cherry, or a small ranunculus, more than those of the generality of roses. It has a weak but very pleasing scent, and is a native of China. Several other Chinese roses agree with it in character. The yellow Chinese Rose, with double large cream-coloured flowers, is very beautiful, but without scent. It is var. *ochroleuca* of *R. Indica*.

But it is for the florist rather than the botanist to select a wreath of roses, and every one will have their particular favourites—but the old red Moss will still be ours, and what can be more beautiful?—it is loveliness in hermit attire. "If," says a competent judge, we were to have but three roses for our own personal gratification, they would be *Souvenir de Malmaison*, *Old Red Moss*, and *General Dubourg*. The latter is a Bourbon rose, which, because it is an old variety, and not very double, has gone out of fashion. We, however, shall cultivate it as long as we enjoy the blessing of olfactory nerves; for it gives us all the season an abundance of flowers, with the most perfect rose scent that we have ever yet found; in fact the true attar of rose." *

* Mr. DOWNING, in the American *Horticulturist*.

The Rose, in some form or other, is generally diffused throughout the northern hemisphere, both in the old and new world : the species are, however, less plentiful in the latter ; for while North America produces only fourteen, Europe has twenty-five. Temperate climes are most suited to numerous *kinds* of roses, for four species only are seen wild in the south of Europe and north of Africa, but then the individuals are more luxuriant ; for while in the north wild roses have generally only single flowers, in Italy and Greece it is not uncommon to find them with double flowers, growing spontaneously in the woods and meadows. No rose has ever been found in South America or Australia. Sir W. J. HOOKER has described nineteen species of roses as natives of Britain, of which perhaps the most beautiful are *R. spinosissima*, *R. villosa*, *R. cæsia*, *R. Sabini*, and *R. Doniana*. Some of the latter, in their prime of perfection, streaked with white and red, might well inspire a poetical mind to utter the following beautiful sentiment, which coincides with the motto with which we opened this chapter ; and thus, insensibly, we shall glide back into the same strain of thought with which we commenced.

“ O gin my love were yon red Rose,
That grows upon the castle wa’,
And I mysel a drop o’ dew
Into her bonnie breast to fa’ !
Oh, there, beyond expression blest
I’d feast on beauty a’ the night ;
Seal’d on her silk-saft faulds to rest,
’Till fley’d awa’ by Phœbus light.”

WITHERING has observed, that “ not less emblematic of beauty and loveliness than the myrtle itself,

the Rose most aptly designates the tender passion, by its gradual advance from the bud to the full-blown flower; and in its different stages was wont to be mutually presented, and if favourably accepted, was deemed the pledge of future felicity.* It also aptly symbolizes the young virgin cut off before arriving at connubial happiness, and thus appears on the grave of maiden purity.—

“ It doth bequeath a charm to sweeten death.”

EVELYN mentions a churchyard in Surrey, that is filled with rose-bushes.* CLEMENCE ISAURE, a lady of Toulouse, who lived in the fifteenth century, and who had often presided at the celebrated Floral Games of that ancient city, presented the citizens with magnificent markets, erected at her own cost, on condition that the games should be held in future within the hall which formed part of her donation, and that *Roses should be strewed upon her tomb*. Her statue now adorns the Hall of the Academy of Floral Games in Toulouse, and is annually crowned with brilliant flowers.

The Rose only appears in its perfection of beauty when Summer has called forth all the glories of creation, and the leafy month of June presents its umbrageous woods sleeping in the fervid rays of noon. Hence the Rose is connected with our most delightful feelings, our earliest excursions, our long-desired holidays, our tenderest recollections; and hence

* According to ancient authors, among the Greeks and Romans, their tombs were often environed with roses, which, on certain occasions, were garlanded about with their fragrant flowers by surviving friends and relatives. Those in poorer circumstances had merely a stone with the inscription—“ Sparge, precor, rosas super mea busta, Viator;” (Oh! passenger, scatter roses, I beseech thee, upon my monument!)—equivalent to the “ Orate pro anima” on the tombs of mediæval times.

the "*Coleur de Rose*," with which I have attempted slightly to tinge this chapter, has become proverbial for that happy and exhilarating state of feeling, which can see no imperfections, and trace no dark shadows within the scope of its imaginings.

"Long, long be my heart with such memories fill'd,
Like the vase in which *Roses* have once been distill'd;
You may break, you may ruin the vase if you will,
But the *scent of the Roses* will hang round it still."

With this sentiment of MOORE's I pause on my flowery excursion—for I can gather no other flowers on the same day with the Rose!

A condensed Synopsis of the *British Species of the Genus Rosa*, may be useful as well as interesting, and is here subjoined.

ROSA. ROSE. *Nat. Ord. Rosaceæ.. Icosandria Polyg. Linn.*

Fruit of numerous dry hairy *akenia* or nuts, enclosed by but merely attached to the inside of the fleshy tube of the calyx.

I. Roses with shoots bearing setæ, or glandular bristles.

1. R. SABINI. Sabine's Rose. Prickles scattered, unequal strait, very crowded together. Sepals somewhat pinnate. Fruit globose, covered with setæ. Flowers mostly white.—Thickets about forest ground, but rare.

β. *Doniana*. Leaves very hairy on both sides. Sepals almost simple. Stem densely setose and prickly. Thickets in hilly spots, rare. Flowers mottled with red.

γ. *gracilis*. With falcate prickles. Cumberland.

(*R. involuta*, Smith, found in the Highlands, is probably a mountain variety, smaller, with simple leafy sepals.)

2. R. RUBELLA. Red-fruited Spinous Rose. Prickles few nearly equal, uniform, slender; setæ very numerous. Leaflets naked (larger than in *R. spinosissima*). Fruit urn-shaped. On the sea coast, but very rare. "Northumberland." A little north of Aberystwith. Fruit pendulous, bright red, not pulpy. (Accord-

ing to HOOKER and ARNOTT,* *R. Hibernica* and *R. Wilsoni* probably belong to this species.)

3. *R. SPINOSISSIMA*. Black-fruited Spinous Rose. Prickles numerous crowded very unequal, strait. Leaves of many sharp-cut leaflets. Sepals entire. Fruit nearly globular, (in maturity) purple-black. Sandy heaths. Excessively plentiful but dwarf, on the coast. Flowers cream-coloured, very fragrant.

II. *Roses with non-setigerous shoots.*

i. With glandulose leaves.

4. *R. VILLOSA*. Clothly-leaved Rose. Leaves hairy, woolly beneath, turpentine-scented. Sepals entire, persistent. Fruit more or less setose. Hedges and thickets, very abundant in Wales. The petals are of a very deep red colour.

N.B. Varieties occur with globular smooth fruit and larger leaves, similar to *R. mollis* of Eng. Bot.

5. *R. TOMENTOSA*. Resinous-leaved Rose. Leaves hairy, turpentine-scented, sepals copiously pinnate. Fruit rather oblong, mostly setose. In hedges and woods, but not very abundant.

6. *R. INODORA*. Slightly-scented-leaved Rose. Leaves doubly serrated, whitish with pubescence beneath. Sepals doubly pinnate. Fruit elliptical.—Hedges and thickety commons, but not frequent.

The leaves of this species have a very slight resinous scent, are silvery beneath, and quickly curl up after being gathered. The ramuli are devoid of setæ, the peduncles setose, and the flowers very pale pink. Fruit elliptical, the neck generally lengthened, with a few setæ at the base only.

7. *R. RUBIGINOSA*. Common Sweet-briar. Leaves very sweet-scented from the numerous rusty glands beneath, doubly serrated hairy, rounded at the base. Not uncommon in bushy places.

The common *wild Sweet-briar* has a much rougher and straggling aspect than the garden form, but is less prickly, especially the radical shoots. The leaves are dark green and smooth above,

* *British Flora*, by Sir W. J. HOOKER, and Dr. ARNOTT, 6th edit.

more or less abundantly covered with glands below, though sometimes entirely smooth, except the midrib. Flowers aggregate, elevated on long smooth *general* stalks supporting a leafy bractea and several bunches of flowers, the exterior ones of which are elevated on smooth stalks with smaller bractæa in a similar manner. The real peduncles are very setose, as is the tube also, though occasionally almost quite smooth even on the same general umbel. Flowers varying in the bunches or umbels from 2 to 14. Scent fragrant.

8. *R. SEPIUM*. Bushy Sweet-briar. Leaves slightly sweet-scented, their leaflets broadly ovate, hairy beneath, the petioles and midribs of leaflets excessively crowded with glands. Calyx persistent, and reclining on the half-ripe almost globular setose fruit, the sepals elongated, with leafy points. This is a rare local species. It is mentioned in HOOKER's *Flora*, as found only in Warwickshire and Oxfordshire. I have gathered it at Little Malvern, Worcestershire, and in Caernarvonshire.

The broad leaflets crowded together, and numerous flower-stalks give this rose a very different aspect to *rubiginosa*, its nearest affinity.

9. *R. MICRANTHA*. Small-flowered Sweet-briar. Leaflets small, acute, doubly serrated, hairy and glandulose beneath. Fruit small elliptical, with extended neck, slightly setose, the sepals glandulose, deciduous. Abundant on limestone or chalky hills.

The smaller flowers and more delicate aspect of this sweet-briar well distinguish it at sight from *R. rubiginosa*, and the fruit is also characteristic. Vars. occur with smooth peduncles and fruit.

ii. With leaves generally deficient of glands.

10. *R. CANINA*. Common Dog-rose. Leaves naked scentless, the sepals pinnate deciduous, fruit quite smooth. Plentifully diffused.

Numerous varieties of this rose occur which certainly deserve distinction, but it may be questionable whether as species or not. Typically the leaves of *canina* are quite naked, but in the vars. *dumetorum* and *Forsteri*, they are more or less *hairy*. These

with *surculosa*, which seems chiefly characterized by its numerous cymes of flowers, I would unite with *canina*, separating the following. The *R. bractescens* of Woods is considered by HOOKER and ARNOTT, "a mere variety" of *canina*.

11. *R. SARMENTACEA*. Sharp-leaved Dog-rose. Leaves very smooth, their leaflets sharply pointed and doubly serrated, pale or glaucous beneath, their serratures as well as the petioles, peduncles, and sepals fringed with glands. Fruit mostly naked, but sometimes setose.—On hilly ground, and the borders of woods.

Vars. of this rose occur with the fruit *excessively setose*, while the foliage is very smooth and glaucous beneath. This deserves to be named *hispida*, if it be, as is probable, the same with the "*hispida*" mentioned by DON under *canina*, in his *Gen. Syst. of Bot. and Gard.* and quoted from DESV. *Journ. Bot.* 1813, p. 114. This hispid rose with glaucous foliage is however of rare occurrence.

12. *R. CÆSIA*. Highland Dog-rose. Leaves downy beneath, their leaflets doubly serrated. Cal. sparingly pinnate. Fruit elliptical, smooth. Thickets in the Highlands.

iii. With exserted styles.

13. *R. SYSTYLA*. Long-styled Dog-rose. Leaves simply serrated, slightly hairy beneath, their petioles prickly, inconspicuously hairy and glandular. Flower-stalks weakly setose, sepals with long taper points, the pinnæ fringed with a few glands. Styles united in a smooth furrowed column, very prominent after flowering.—Bushy places, but rare.

The flowers of this rose are aggregated in numerous clusters, but unless closely examined as it is going out of flower, it may be easily passed over as a var. of *canina*.

14. *R. ARVENSIS*. Trailing Field Rose. Branches very long trailing, glaucous. Leaves simply serrated, glaucous beneath. Flower stalks glandular, calyx sparingly pinnate, deciduous. Styles united, hairless, very prominent, and persistent on the smooth globular fruit. Very common except in mountainous districts.

This species trails excessively in woods, where its light green

entangled stems may be noticed forming dense coverts even in the winter season. The flowers are distinguished by a peculiar smell not so agreeable as in other roses, and they continue in sheltered spots even to October. The fruit is often abortive, when ripe perfectly globose.

•
“Gather you rose-buds while ye may,
Old Time is still a-flying;
And this same flower, that smiles to-day,
To-morrow will be dying.”

WILD FLOWERS OF JUNE.

(CONTINUED.)

CHAP. XIV.

FLOWERING OF PLANTS COINCIDENT WITH FESTIVALS—
ELDER AND SHEEP-SHEARING—SEASONAL RETARDATIONS
THUS NOTED—THE YEW, THE BIRCH, AND THE HOLLY
IN CHURCHES—HABITATS AND SELECTIONS OF PLANTS—
INFLUENCE OF LIME-STONE—VEGETATION OF THE GREAT
ORME'S HEAD—LOCAL AND WANDERING PLANTS—PIM-
PERNEL AND OTHER METEORIC FLOWERS.

“ In every copse and sheltered dell,
 Displayed to the observant eye,
Are faithful monitors, who tell
 How pass the hours and seasons by.

The green-rob'd children of the Spring
 Announce the periods as they pass,
Entwine with leaves Time's feather'd wing,
 And deck with flowers his silent glass.

And thus each flower and simple bell,
 That in our pathway scattered lie,
Are Flora's monitors that tell
 How fast the winged moments fly.

Time will steal on with ceaseless pace,
 Yet lose we not the fleeting hours,
While thus their fairy steps we trace,
 As light they dance among the flowers.”

In the last chapter I presented my readers with a
bed of Roses, to which I hope no objection can be
made; but while we have been reposing upon it, I

find so many flowers have sprung up around us, that unless numbers are altogether neglected, it is absolutely necessary to recount more of those that belong to the delightful month of June.

I may here mention a subject not previously dilated upon—the coincidence of the flowering of certain plants with particular days or festivals. Rustic observers, men without books, having often observed particular flowers appearing almost constantly when they were engaged upon some ever-recurring employment, or on some holiday they delighted in, at length associated these flowers with the anniversaries referred to, and conceived that the times of their observation had not legitimately arrived, if the flowers were not apparent in their beauty. In this way St. George's day became associated with the *blue-bell*, on account of its being generally in flower at that time, hence the old lines—

“On St. George's day, when blue is worn,
The *hare-bells* blue the fields adorn.”

The Guelder Rose (*Viburnum opulus*), or “Snow-ball-tree” of the gardens, is always associated with Whitsuntide, and hence its silver globes are called “Whitsun bosses” by the rustics, and it is seldom they are not fully expanded by Whitsun Sunday. The latter end of May is indeed their correct flowering time, though in full perfection the first week in June.

DYER has made sheep-shearing to correspond with the flowering of the Elder (*Sambucus nigra*).

“If verdant *Elder* spreads
Her *silver flowers*, if humble Daisies yield
To yellow Crowfoot and luxuriant grass,
Gay shearing-time approaches.”

This, according to FORSTER, as marked in the ephemeris of nature, should be about the 5th of June, and in average years the Elder is often in flower by that time fully; but in the ungenial season of 1838, I observed no flowering Elder till June 23d, and even in the year 1839, although not quite so bad, no Elder was in flower until June 14th. In the very warm season of 1848, it flowered as early as May 16th. The Elder is one of those domestic trees seldom seen far from the houses or cottages of man, and therefore particularly suited for the purposes of a rustic calendar. Though now pretty widely dispersed by birds, it is rarely observed in primitive woodlands, and has probably followed human immigration, being planted not only for its utility, but from superstitious motives. The Elder, in fact, was accounted of old one of the antidotes to sorcery, as precluding the access of sorcerers and defeating their art. Hence it has been said that the gardens and houses of our ancestors were protected from witchery by the Elder-tree.* BOERHAAVE, the celebrated physician of Leyden, is reported to have held this tree in so great veneration, that he seldom passed it without taking off his hat, and paying reverence to it!

POOR CLARE, the Northamptonshire poet, in his *Shepherd's Calendar*, mentions a curious custom as still existing at the termination of the sheep-shearing at farm houses, and probably derived from long antiquity—when a damsel presents every shepherd, who has been employed in the work, with a bouquet of flowers—commonly called “clipping posies.” As CLARE mentions several flowers that appear in the selection, I shall quote his homely strain.

* DALYELL'S Superstitions of Scotland.

"And now, when shearing of the flocks is done,
 Some ancient customs, mix'd with harmless fun,
 Crown the swain's merry toils. The timid maid,
 Pleas'd to be prais'd, and yet of praise afraid,
 Seeks the best flowers ; not those of woods and fields,
 But such as ev'ry farmer's garden yields—
 Fine cabbage-roses, painted like her face,
 The shining pansy, trimm'd with golden lace ;
 The tall topp'd larkspurs, feather'd thick with flowers,
 The woodbine, climbing o'er the door in bowers ;
 The London tufts, of many a mottled hue,
 The pale pink pea, and monk's-hood darkly blue ;
 The white and purple gilliflowers, that stay
 Ling'ring in blossom summer half away ;
 The single blood-walls, of a luscious smell,
 Old-fashion'd flowers, which housewives love so well ;
 The columbines, stone-blue, or deep night-brown,
 Their honeycomb-like blossoms hanging down,
 Each cottage garden's fond adopted child,
 Though heaths still claim them, where they yet grow wild ;
 With marjoram knots, sweet briar, and ribbon-grass,
 And lavender, the choice of every lass,
 And sprigs of lad's-love—all familiar names,
 Which every garden through the village claims.
 These the maid gathers with a coy delight,
 And ties them up in readiness for night ;
 Then gives to every swain, 'tween love and shame,
 Her '*clipping-posies*,' as his yearly claim."

This custom is fully developed in the beautiful scene
 in SHAKSPEARE'S *Winter's Tale*, where Perdita pre-
 sents her father's guests with characteristic flowers,
 according to their various ages—

"It is my father's will, I should take on me
 The hostesship o' the day :—You're welcome, sir !
 Give me those flowers, there, Dorcas.—Reverend sirs,
 For you there's Rosemary, and Rue ; these keep
 Seeming and savour, all the winter long :
 Grace, and remembrance be to you both,
 And welcome to our shearing !"

It was also an ancient practice to scatter flowers upon the streams at shearing time, and this is still done in some secluded spots in the present day.

Anciently, the flowers of the woods, fields, and gardens, were intimately associated with the festivals of the church, and when the style was altered in the last century, many people who had slips in their gardens from the celebrated Holy Thorn of Glastonbury, said to flower only on the eve of our Saviour's nativity, boldly appealed to it to solve their doubts, and as the thorn, true to its usual time, could not be persuaded to accelerate its budding, Old Christmas Day was long kept in defiance of the Act of Parliament, and even now, in secluded parishes, is honoured as alone worthy of hallowed respect. The old rhyming anthology says—alluding to the longest day being then associated with the feast of St. Barnabas—

“When St. Barnaby bright smiles night and day,
Poor ragged Robin blooms in the hay;

and certainly we may rest assured that Summer is not come till this plant, *Lychnis flos-cuculi*, shows its ragged red petals in the grass. Another plant, still more true to the first summer days of June than the Ragged Robin, is the Silver-weed (*Potentilla anserina*), which, distinguished by its creeping argenteous leaves and brilliant golden flowers, now burnishes the sides of roads and heathy spots. At this time, too, the Yellow-Rattle (*Rhinanthus Crista-galli*), abounds in the grass of meadows, and when its seeds *rattle* spontaneously in their capsules, like dice in a box, the grass is then said to be ripe for cutting, and Hay-harvest commences.

The St. John's Wort, (*Hypericum*), bears its title

from flowering on or about June 24th, the day of the celebration of the feast of John the Baptist;* at this time, too, Glow-worms begin to be luminous, if the weather is fine and warm,† and are seen by road sides and under hedges, &c. whence their German name, *Johannis-wurthen*, or St. John's worms. Facts like these furnish an incentive for a botanist to "look-out," and by examining the appearance of well-known plants, he is soon able to know whether the season is forward or backward, and even by how many days it is so.†

It must be recollected, however, that no deduction of this kind can be drawn from the appearance of the *primaveræ* flowers, as such plants with a warm aspect may flower in particular spots without the majority of their brethren, as every body knows who has met with a primrose or cowslip by the woodside, or on a southern bank. In mild autumns, too, it is not uncommon to find the primrose or dog-violet ante-dating its usual period of flowering by a couple of months; in these cases the first frost of course destroys the too hasty adventurers. But a reference to the solstitial flowers is decisive as to the progress of vegetation has actually made. I have noticed for many years that the Yellow Iris or Flag (*Iris pseudacorus*) almost always unfolds

* In some parts of Wales this solstitial flower is placed upon door-posts as a defence against evil spirits—a custom, perhaps, derived from Druidical times. Some of the early medical writers, who fancied that the St. John's Wort was a specific in hypochondriacal disorders, gave it the fanciful term of *fuga dæmonum* (devil's flight,) and this being literally interpreted, caused the plant to be gathered on St. John's Day with great ceremony in France and Germany, that the people might hang it up in their houses, as a charm against storms, thunder, and spirits.

† The precise time of the flowering of plants from their first appearance to their seeding, has been but little attended to by authors of systematic floras, although as indicative of climate it is of considerable importance.

its brilliant corolla on May 31st, or June 1st; the latter date is given by FORSTER in his *Rustic Calendar*, and I remember but few seasons in which the marshes were not yellow with some of its flowers on the 1st of June. But in 1837 I observed no flower of the Iris expanded before June 19th, and not till June 17th in 1839, so that in those two ungenial springs there was a general seasonal retardation, in the one case of *eighteen*, and in the other of *sixteen* days. On the other hand, in 1848, there was a considerable *acceleration* in the flowering of plants, from the singularly hot and early summer of that year.* The Yellow Iris was then in full flower on May 24th. The *Rosa spinosissima* usually commences flowering from the 20th to the 25th of April, but in the former of the years mentioned, it did not expand, to my observation, till June 11th, while *Rosa canina* almost always showing some flowers by June 1st or 2nd, presented none before June 19th, and then very partially. In 1839 the wild Rose did not show its flowers until the 20th of June, while the 20th of May, 1840, exhibited a floral aspect at least a month in advance of the former year. The high temperature of the early part of the summer of 1848 brought out the Dog-Rose as early as May 17th.

The association of the green boughs of the season, in connection with church festivals, is very pleasing, and fraught with poetical imagery. I have frequently been charmed to behold rustic churches plenteously adorned with the green pledge of renewed spring, or the evergreen promise of immortality. I remember in a spring ramble, some years ago, being overtaken

* In the *Phytologist* of that year I have examined the subject in detail.

by a thunder-storm, when I hastened to shelter in the porch of Shrawley church,* whose adjacent wood, famed for botanical rarities, I have visited oft and again. It was the day before Whitsunday, and finding the church door open, I walked into the edifice. The old clerk was busily engaged in decorating the interior with birchen branches just come into leaf—the “gay green birk”—sacred to joy and Whitsuntide. The old man observed that this was an ancient custom, the origin of which he did not know; but the *Yew* at Easter, the *Birch* at Whitsuntide, and the *Holly* at Christmas, was used to be of old time beyond memory. This is alluded to in the following quaint lines, which have reference to the four festivals of Christmas, Candlemas, Easter, and Whitsuntide, which were each distinguished by their peculiar frondal ornaments.

VERSES FOR CANDLEMAS EVE.

Down with the Rosemary and Bayes;
Down with the Mistletoe;
Instead of Holly, now upraise
The greener Box for show.

The Holly hitherto did sway,
Let Box now domineere
Until the dancing Easter Day,
Or Easter Eve appeare.

Then youthful Box which now hath grace
Your houses to renew;
Grown old, surrender must his place,
Unto the crisped Yew.

* About eight miles north-west of Worcester.

When Yew is out then Birch comes in,
And many flowers beside ;
Both of a fresh and fragrant kinne,
To honour Whitsontide.

Green Rushes then, and sweetest Bents,
With cooler Oaken boughs,
Come in for comely ornaments,
To re-adorn the house.

It has been supposed that the sombre funereal Yew that appears in most churchyards, and often of immense size and great age, was originally planted in such situations from its use in connexion with the festivals of the church. But it is remarkable that Holly, equally wanted at Christmas, should seldom or never be found there, to say nothing of Birch ; and it is most probable, that as the Cypress was the symbol of immortality with the Pagan nations of antiquity, so the Yew was selected by the Christians in northern countries as equally analogous in this respect ; and typical, not only of the immortality of the soul, but of the perpetual endurance of that Church, against which the gates of hell were in scriptural terms never to prevail.

By the middle of June, in dry stony localities, the little Wild Strawberry (*Fragaria vesca*), often displays its scarlet fruit, which fairy-like as it appears, yields not in flavour to the largest horticultural variety. Often, indeed, when sinking wearied on the turf after a toilsome exploration, have I seen its little pitted globes with joy, and refreshed my parched tongue with its grateful and fragrant moisture.

In a former chapter I alluded to the localities of plants, and I may here add that the *habitats* they

affect are equally curious, and form a great charm in tempting the exploring foot of botanical research. It may be said in general that some plants are found in woods, some on precipices, and others in bogs—but where are these woods, precipices, and bogs?—they must be sought and explored, for the same plants are not universally diffused alike, but have their particular partialities to places and aspects adapted to their growth, where only they fix their abode or extend themselves from.

In glancing at the vegetation of England we perceive species that affect only northern stations, as Twisted-podded Whitlow Grass (*Draba incana*), Wood Stichwort (*Stellaria nemorum*), Bird Cherry (*Prunus Padus*), White Mountain Avens (*Dryas octopetala*), Northern Galium (*G. Boreale*), Bird's-eye Primrose (*Primula farinosa*), Alpine Bistort (*Polygonum viviparum*), &c. Others are more peculiarly allocated in the West, as the Mona Cabbage (*Brassica Monensis*), Sea Mallow (*Lavatera arborea*), Wood Bitter Vetch (*Vicia Orobus*), Wild Madder (*Rubia peregrina*), Yellow viscid Bartsia (*B. viscosa*), &c. A few are confined to spots in central England that seem most congenial to their growth, amongst which are the Horse-shoe Vetch (*Hippocrepis comosa*), Crimson Grass Vetch (*Lathyrus Nissolia*), Hyssop-leaved Loosetrife (*Lythra hyssopifolium*), Great Hartwort (*Tordylium maximum*), and Downy Woundwort (*Stachys Germanica*). Among the species on our southern coasts and not disposed to progress further, may be noticed the Linear-leaved St. John's Wort (*Hypericum linari-folium*), Yellow Wood Sorrel (*Oxalis corniculata*), several Trefoils and Vetches, Sand Strapwort (*Cori-*

giola littoralis), Glabrous Rupture-Wort (*Herniaria glabra*), Whorled Knot-grass (*Illecebrum verticillatum*), Summer's Lady's Traces (*Neottia æstivalis*), Butcher's Broom (*Ruscus aculeatus*), and various others. The Eastern counties of England possess many plants peculiar to that side of our island, as the Scarlet Horned Poppy (*Glaucium Phœniceum*), Smooth Sea Heath (*Frankenia lævis*), Spanish Campion (*Silene Otites*), Yellow Sickle Medick (*Medicago falcata*), Field Medick (*M. arvensis*), Mossy Tillæa (*T. muscosa*), Field Southernwood (*Artemisia campestris*), Fen Ragwort (*Senecio paludosus*), Purple Cow-wheat (*Melampyrum arvense*), Water Soldier (*Stratiotes aloides*), &c. The geographical botanist tracing these plants to their continental centres (for the Flora of Britain is almost entirely derivative), is enabled to place them with larger assemblages, and thus provinces of plants on an extended scale (perhaps centres of creation) are established. By such observations the boundaries of philosophic botany are enlarged, while the observer perceives a new interest investing the habitats of plants, eliciting constant enquiry and inciting to ever renewed investigation.

I remember showing a friend the rare British Woad (*Isatis Tinctoria*), growing on a red marl cliff close to the River Severn, above Tewkesbury;* but if my good

* This tall plant, which has a very splendid aspect when in flower, is of rare occurrence in a wild state, but flourishes somewhat profusely on the precipitous marl cliff at the Mithe Tout, an ancient British Tumulus by the side of the Severn, above Tewkesbury. At the time alluded to in the text, when with the friend referred to, I gathered several noble specimens, six feet in height. Some had double stems and above twenty compound branches in each panicle of flowers. Most of these branches had more than twelve branchlets, each having about *eighty* blossoms, so that these magnificent adornments of the native Flora of Britain, each bore nearly *twenty-four thousand* single flowers! The authors of Floras and Cata-

friend were compelled to clamber up every cliff and hill within the kingdom of England, dominion of Wales, and town of Berwick-upon-Tweed, day by day, till another brilliant *Isatis* met his view, I fear his ascents and explorations would produce many an adventure in

“ ———— th’ imminent deadly breach,”

ere he effectually accomplished his purpose. On another occasion a brother botanist and myself were nearly a whole day hunting among marshes and ditches for the beautiful Water Violet (*Hottonia palustris*), which we failed to find, though a thousand “*Adders’ Tongues*,”* which we had not dreamt of, presented themselves across our track—yet only two or three days after, a fair maiden brought to my house a bunch of these self same Water Violets, which my friend and myself had so long looked for in vain. And these lovely gems of intermingled lilac, white and yellow, abounded in one watery ditch only in my neighbourhood, while a thousand excursions had failed to present them ever to my view before. So the beautiful Wood Vetch (*Vicia sylvatica*), whose blossoms marbled with deep purple veins, might, as Sir WALTER SCOTT says, “canopy TITANIA’S bower,” in some woods revels most profusely, and, covering the bushes and trees makes a delightful show, while in others it might be sought for in vain.

The beautiful Bastard-Balm (*Melittis Melissophyllum*), so long retaining its fragrance in the herbarium,

logues persist in marking this as an introduced plant, but as it was used for tinctorial purposes by the painted Britons, it seems likely enough to have been indigenous in their day. It may always be found at the locality named, where I have known it more than thirty years, and never failing

* *Ophioglossum vulgatum*.

is mostly confined to Hampshire and the south-west of England. It was therefore with high delight that I formed one of a botanical party when once visiting Cheltenham, to see and gather this rarity in a wood called Puckham Scrubs, among the heights of the Cotteswolds.

Many of the Orchidiæ are very local—the beautiful Bee-Orchis (*O. apifera*), generally only occurs on or near limestone; the Frog Orchis (*Platanthera viridis*) in moist pastures; and the singular Lizard Orchis, has been hardly ever met with any where else in Britain than near Dartford, in Kent. Those who live in the vicinity of the chalk formation may find many beautiful plants confined to such habitats, as the Brown-winged Orchis (*O. fusca*), Military Orchis (*O. militaris*), Monkey Orchis (*O. tephrosanthos*), and the very singular Green Man Orchis (*Aceras anthropophora*), whose flowers, when closely examined, have such a strange anthropomorphous aspect, as to seem like little men or monkeys. Indeed, scarcely a range of hills or mountains exists which has not some plants either peculiar to them, or more abundant there than in other places—and in glancing at my herbarium I have just met with a fine specimen of the purple Milk Vetch (*Astragalus hypoglottis*), which I well remember to have snatched with joy from the rugged brow of Bredon-hill, Worcestershire, many years ago.

The angular-leaved Solomon's Seal (*Convallaria polygonatum*), is another of those beautiful plants that restricted to privileged though truly natural localities, so often rise up to the imagination of the really enthusiastic field botanist, to tempt his wandering steps and promote his mental enjoyments. This, with the

curious *Monotropa*, or Yellow Bird's Nest, and the dark poisonous Deadly Nightshade (*Atropa Belladonna*), we have gathered in many delightful rambles with our acute friend, Professor BUCKMAN, among the Cotteswold woods and wilds in Gloucestershire.*

In some places the Knobby-rooted Water-Dropwort (*Ænanthe pimpinelloides*), cannot fail to attract attention, where, as in Worcestershire and Gloucestershire, it fills whole upland meadows with its white close-flowered umbels in the month of June, just before the time of cutting the grass. It is well distinguished by its root of many widely-spreading *round or ovoid scaly tubercles* on lignose stalks, terminating in fibres. The radical leaves extend in a remarkable horizontal manner, bi-pinnate, the pinnulæ broadly elliptical. An allied species, flowering in May, and considered by HOOKER and ARNOTT as the *Æ. silaifolia*, Bieb. (*peucedanifolia* Sib. and Smith,) has the tubercles of the root *elliptical* or *pyriform*, and always sessile, often suddenly swollen and graduating into fibres. In the latter plant the radical leaves scarcely differ from those of the stem, and it affects marshy spots and the vicinity of rivers. *Ænanthe Lachenalii*, which is the commonest of the three, flowers a month later than the others with a lax umbel, and delights in maritime or salt-water marshes. Its root consists of many long slender fusiform tubercles, its radical leaves are simply pinnate, their leaflets broadly lanceolate, entire, blunt. The fruit of this is small, inversely conical, without any callosity at the base.†

* See Professor BUCKMAN'S *Botany of the Environs of Cheltenham*.

† See the *Phytologist* for Dec. 1845 (vol. ii. p. 354 et seq.) for figures of the roots and detailed descriptions of these plants.

The round-headed Rampion (*Phyteuma orbiculare*), which flowers in June, is a rare inhabitant of chalky soils, chiefly in Surrey, Sussex, and Kent. The Field Fleawort (*Cineraria campestris*), is almost entirely confined to the chalky downs in the middle and south of England; the dwarf Nipplewort (*Lapsana pusilla*), is also very sparingly distributed, and many other plants have equally curious limitations. So that the wandering herbalist may fairly hope to gain something new to him in every fresh progress he takes.

In general, limestone rocks, or a calcareous soil, is more favourable to the vegetation of a variety of plants than almost any other: and thus while an unobservant person might hunt a level meadow tract in vain for any botanical rarities, the experienced collector, versed in a knowledge of the habitats affected by plants, will know where he is most likely to collect a number in the smallest space. Certain localities are extraordinary in this respect. I remember rambling a few years ago, when out on a tour, from Conway to the Great Orme's Head, overlooking the Irish sea. In this distance of five or six miles, I had not met with a single specimen of interest; but scarcely had I commenced scrambling up the promontory, when I literally *stumbled* upon the following plants, all within a few feet of each other.

Spiked Speedwell, *Veronica spicata*.

Lesser Meadow Rue, *Thalictrum minus*.

Nottingham Catchfly, *Silene nutans*.

Bloody Cranesbill, *Geranium sanguineum*.

Common Dropwort, *Spiræa filipendula*.

Vernal Cinquefoil, *Potentilla verna*.

Intermediate Whitebeam, *Pyrus intermedia*.

Mountain Catsfoot, *Antennaria dioica*.

Autumnal Gentian, *Gentiana amarella*.

English Clary, *Salvia verbenaca*.

Hoary dwarf Rock-rose, *Helianthemum canum*.

Marjoram, *Origanum vulgare*.

Lady's finger, *Anthyllis vulneraria*.

Welch Golden-rod, *Solidago Cambrica*.

Taking in the whole promontory a very long list might be enumerated. I did not at this first visit meet with the *Cotoneaster vulgaris*, well known as an inhabitant of the cliffs of the Ormeshead, its only known location in Britain, for being alone, and scaling the wildest and most desolate-looking rocks, evening found me among them involved in gloom. At a subsequent time the plant was pointed out to me. It grows indeed almost in the last place a stranger might expect—on a limestone ledge descending in easy steps just behind a farm house called Tan-y-Coed, some distance above Llandudno village, but looking inland; the summit may be between 400 and 500 feet high, but the western part of the head is higher. The easy descent of this ledge causes numerous shrubs to grow there, as privet, holly, spindle-tree, and even much hazel. There is some quantity of the *Cotoneaster*, though growing dwarf out of the cracks of the rock. It has ripe fruit in August, and then many of the leaves are beautifully tinged with scarlet. The limestone ledge, whose escarpment now faces inland, yet appears as if at no distant period it had been a great bird rock, washed by waves that have now retired from its base. An instance of the changes that may occur in the vegetable aspect of a district, is observable on the Ormeshead, now almost entirely denuded of foliage, and covered with broken masses of time-worn stones. But clumps of verdant Juniper appear

on many of the rocks to the very summit westward, though now procumbent on the limestone, the boisterous gales not permitting its upward growth. Yet as most of the roots are large, and of great age, it is easy to imagine that the now "white pow" of the promontory had in earlier times a more verdant if not grove-like aspect. The original upright junipers have evidently been cut down at some former period, though when scattered in verdant masses, as in druidical times, must have rendered the upper stories and stone circles nestled on the cliffs far more sheltered places of observation than they are at present. Indeed on a curious isolated hill near Gloddaeth, called Cadir-y-Nain, or "my Grandmother's Chair," some upright clumps of Juniper still remain rising to a considerable height. Yet so completely were the woods that once clothed Anglesea destroyed, that when DAVIES published his *Welch Botanology*, describing the plants of that island, in 1813, he could then find no Juniper at all there, and he only says, "I venture this as *once* an inhabitant, from the name of a place, *Cefn-y-Terywen*, the juniper bank."

Besides the Great Orme's Head and its attendant minor prominences, many other calcareous heights may be mentioned as favourite botanical localities. Box Hill, in Surrey, famous for its box groves, nurses also various uncommon *Orchidiæ*, and the very rare cut-leaved annual Germander (*Teucrium Botrys*). Numerous local species are also found on the chalky cliffs in the vicinity of Dover, and other parts of our south-east coast. Brean Downs, in Somerset, and St. Vincent's rocks, near Bristol, have been long noted in botanical story for their many rarities, as well as

Craig Breidden, in Montgomeryshire, and such places are always most productive in specimens of interest. Among the maritime rocks in the vicinity of St. David's, South Wales, several plants grow rarely met with elsewhere in Britain, as the elegant *Cyperus longus*, and *Genista pilosa*. The practical botanist, then, should be prepared for many a long ramble, if he would enjoy the pleasure of plucking the golden apples of the Hesperian gardens for himself, but even failing in the object of his quest, the many romantic scenes placed before his view, are, in themselves a sufficient reward.

Several plants puzzle the botanist from their runagate disposition—always shifting their positions, and hence never to be found precisely in their former abodes. Such is the pretty little Deptford Pink (*Dianthus armeria*), that coyly opens only one of its speckled blossoms at a time, then closes it and unfolds another, thus retaining her beauties as long as possible, and offering a lesson of economy.

The Highland Cudweed (*Gnaphalium sylvaticum*), frequently flies off from the spot of its birth;—I gathered a specimen of it on the North Hill, Great Malvern, in 1830, but for years could not again find it there until 1841, when several hundreds again occurred, but higher up the hill. Since that time I have searched the spot in vain for the plant. *Reseda fruticulosa* is a casual wanderer, very likely to lead the botanist astray, if looked after in its place of growth the following year. So I once gathered St. Barnaby's Thistle (*Centaurea solstitialis*), among the sand hills on the shore at Barmouth, North Wales, but though I have several times since been at the

spot, I could never again detect it there. The narrow-leaved Pepperwort (*Lepidium ruderales*), in like manner shifts its quarters very capriciously. The beautiful crimson Grass-Vetch (*Lathyrus nissolia*), is another wanderer, that rarely presents its crimson flowers to the charmed eye in bushy places, where it would be totally inconspicuous without such adornments, as its leaves simulate those of grass. The botanist, then, must let no ramble escape him without improvement, or he may lose opportunities never to occur again, for it often happens that various contingences are required for the flowering of a plant, which may not again soon happen for many years: thus, when an undergrowth of wood is cut down in a coppice or forest, that season the ground being more open to the influence of the sun, plants arise and blossom before unknown there, which, as the trees grow, sink again into profound repose—and, as in the tale of the “Sleeping Beauty of the Wood,” remain absorbed in deep slumber, till the sun, like a liberating hero, once more pierces into the broken labyrinths of their prison, and rouses them to renewed life and joy.

A few very rare species seem singularly restricted to narrow bounds, from whence, like Prometheus chained to his rock, they are unable to escape, and so may always be met with in the places indicated.* Thus *Helianthemum Breweri*, has been found only on

* A plant that is singularly confined to one spot, as the *Origanum Tournefortii*, never met with except on the island of Amorgos, in the Archipelago, may become by accident altogether lost to the earth; and this appears to be the case with the Smooth-podded Vetch (*Vicia lœvigata*), described by SMITH, and figured at p. 483 of *English Botany*. It grew on the pebbly shore of Weymouth, Dorsetshire, “the only station recorded for it in the whole world,” say Messrs. HOOKER and ARNOTT, in the last edition of the *British Flora*, “and there it is now lost.”

Holyhead Mountain, in Anglesea; *Dianthus cæsius* on the Cheddar Cliffs, *Trinia glaberrima* on St. Vincent's Rocks, and their vicinity, *Seseli Libanotis* chiefly on the Gogmagog hills, Cambridgeshire, and Cornish Bladderseed (*Phytospermum Cornubiense*), only in bushy fields about Bodmin. Other plants might be mentioned having special limitations, or contracted bounds, as the Tuberous Plume-thistle (*Cnicus tuberosus*), recorded as only growing in the Great Ridge Wood, on the Wiltshire Downs; but since found in another locality on the cliffs between St. Donat's and Dunraven, Glamorganshire, by Mr. THOMAS WESTCOMBE, of Worcester.

There are several plants that bear the name of "meteoric," so denominated by LINNÆUS, as being more subjected than others to the influences of the weather and atmosphere, or, at all events, more sensitive to these influences. The pretty *Arenaria rubra*, that opens its purple petals wide before the mid-day sun, closes them instantly as soon as plucked, or folds them close should a storm obscure the welkin with dark clouds. The Daisy "goes to bed," as it is said, before the sun goes down, but the bright Yellow-wort (*Chlora perfoliata*), closes the flowers before 5 P.M., and the yellow Goat's-beard (*Tragopogon pratensis*), so common now in upland meadows, even before noon—hence its colloquial name, "Go-to-bed-at-noon."*

* Modern botanists have made two if not three species of *Tragopogon* (Goat's-beard) out of the original *T. pratensis* of LINNÆUS. *T. minor*, of FRIES, is described as having its involucre twice as long as the corollas, and *T. major*, a larger plant, was considered as a "good species" by the late Professor DON, though Mr. BABINGTON has reduced the latter to a synonym of *T. minor*. If size only were to guide us, undoubtedly a plant four or five feet high seems entitled to a major's commission, while one of barely three or four inches in altitude can be nothing but a *minor*.

Some flowers on the other hand continue their expansion throughout the hours of gloom, silvering the robe of contemplation ; or like the Evening Primrose (*Ænothera biennis*), prefer to open their beauties when all things are sobered by twilight, as if anxious only for the gaze of pensive melancholy, or incitative of poetical thought. So BERNARD BARTON writing to the Evening Primrose says—

“ I love at such an hour to mark
Thy beauty greet the night breeze chill ;
And shine 'midst gath'ring shadows dark—
The garden's glory still.”

The little Pimpernel (*Anagallis arvensis*) sullenly keeps its scarlet petals closely shut on a cloudy or a rainy day, and this so constantly and certainly, that it has been called the “Shepherd's Weather Glass ;” for whatever the barometer may indicate, if the red Pimpernel has its flowers expanded fully in the morning, there will, to a certainty, be no rain of any consequence on that day, and the umbrella and the

Both such I have found, and in meadows at Cleeve, near Cheltenham, where the Goatbeards were almost as abundant as the grass itself, have met with the three kinds growing in proximity. The majority were good *pratenses*, some were *minors*, and in the shade by the hedge side towered in lofty pride two or three *majors*. From the observations I made, it appeared to me that the alledged differences in the *length of the involucre*, formed no diagnosis to be depended on. For in the numerous plants in the pasture alluded to, very considerable differences appeared in the length of the involucre, some in this respect being *pratensis*, others *minor*. But, in fact, the very same plant exhibited variations in the length of the involucre, and I much doubt if a *Tragopogon* can be found in Britain which at the *first opening of its corolla*, has not the involucreal bractees nearly twice as long as the florets. If the corolla has opened and closed more than once, then the bractees are *shortened in appearance*, and the florets are elevated by the growth of the fruit, so that by the time the pappus is ready to expand, the florets and bractees are exactly equal, and in this state the plant must be referred to *T. pratensis*. No other discriminating marks are given, and I believe there are none, so that *T. minor* can scarcely be considered even a variety of *pratensis*, but is identical with it.

macintosh may be safely dispensed with. The following lines were composed in illustration of this circumstance.

TO THE PINK-EYED PIMPERNEL.

"Clos'd is the pink-eyed Pimpernel."

DR. JENNER.

Come, tell me thou coy little flower
Converging thy petals again,
What gives thee the magical power
Of shutting thy cup on the rain ?
While many a beautiful bow'r
Is drench'd in nectareous dew,
Seal'd up is your scarlet-ting'd flow'r,
And the rain peals in vain upon you.
The cowslip and primrose can sip
The pure "mountain dew" as it flows,
But you, ere it touches your lip
Coyly raise your red petals and close.
The rose and the sweet briar drink
With pleasure the stores of the sky,
And why should your modesty shrink
From a drop in that little pink eye ?
As churlishly thus you deny
A pledge to the flow'rs of the plain,
May I ask if your brilliant pink eye
Frowns on others as well the rain ?
If a drop is too much for your head,
That thus you the nectar exclude,
When the sun gleams the rainbow to spread,
You must think e'en the sunbeams too rude !
But no ! 'tis not so, calm and bright
The tempest has fled from the skies,
The sun has illumin'd the height,
And Miss Pimpernel opens her eyes !

And thus 'tis in vain to o'erpower
 A maiden with flatteries and pelf;
 For true love, like the Pimpernel flower,
 Is best when it opens itself.

Plants that observe particular hours for opening and closing their petals, become horologues, and this is the case with many of the syngenesious tribe. The Garden Lettuce (*Lactuca sativa*) opens at seven a.m. and shuts at ten, the Mouse-ear Hawkweed closes at half-past two p.m., while the *Hypochaeris* continues expanded till three. Exotic plants are still more remarkable in this respect—as the “Four o'clock Flower” that commences expanding at that time, and the Night-blowing Cereus.

The meadows are now in their glory with towering grasses, soon destined to fall before the scythe; but ere they are cut down in their pride, several beautiful flowers are seen sparkling amidst the golden buttercups, and one characterized by its large purple corolla—the Meadow Crane's Bill (*Geranium pratense*), cannot fail to be often noticed, as well as the tall rough Cow-parsnep (*Heracleum sphondylium*); while here and there the Birds'-foot Trefoil (*Lotus corniculatus*), the long-rooted Cat's-ear (*Hypochaeris radicata*), and several other composite flowers, form glowing patches of gold, finely contrasting with the argent masses of Daisies and *Anthemis*,* or the bright pink clusters of the Rest-harrow and Clover.

“The grass is thick with flowers on crisp stalks
 Full of the juicy virtues of the place;
 The spiky thistle, blue cranesbill, gorgeous heath,
 And globed clover full of honey-dew,
 And sweeter than the cowslip.”

* *Anthemis inodorus*, *A. cotula*, and other allied composite flowers.

In some romantic hollow lane, overrun with Fox-glove (*Digitalis purpurea*), studded with many an old wizard-like pollard with bare extended arms, and high overbowered with wild roses and honeysuckle, day at last closes upon our observation, and the cold perfumed breath of evening fans our forehead. The streamlet that forms a deep gulley in the bottom, has begun a patter among the pebbles that was almost unheard amidst the din and hum of day—and the bat, careering among the wyte elms high in air, is seen at recurring intervals in fine relief upon the brilliant ruby that tinges the evening sky. And now, as the road begins to appear obscure, up starts the glow-worm's "ineffectual fire" to cheer our path and stud the deepening gloom. In our next chapter we must "look out" for new adventures.

EXPLORATORY NOTICES FOR JUNE.

As many of the beautiful tribe of *Orchidiæ* are to be found in full perfection this month, it may be useful to the neophyte to give a hint how to preserve them in perfection. Their stems abounding in nutriment, the moisture remains a long time in them after being gathered, and thus the ovaries increase in size, and the flowers proceed slowly to wither, as if still growing in the open air. Some of them, too, certainly the Bee Orchis (*Ophrys apiferae*), ripen their seeds even in this artificial state, the carpels elongate, distend, burst, and finally scatter their minute and almost innumerable seeds within the sheets of paper in which they are placed. I have calculated that a single luxuriant Bee Orchis may produce more than ten thousand seeds. They probably remain a considerable time in the soil before they vegetate, but in favourable seasons this takes place very profusely, as I remember once gathering with two botanical friends, more than seventy plants within the space of a few square yards. However, from the circumstance I have mentioned, unless the vitality of the withered plants are quickly destroyed, the flowers lose all their beauty, and become entirely shrivelled up. This difficulty is to be obviated by the application of a knife and a moderately hot iron. First, an incision should be made in the ovary, and the seeds carefully extracted, even those of the unexpanded flowers. The plant is then to be

placed on some soft paper, with several folds of waste paper both above and below it, and the hot iron placed on, being gently shifted as occasion requires. Great care must be taken that the iron be not *too* hot, or the specimen will be at once totally spoiled; but if due caution be observed, and the degree of heat properly regulated, the juices of the orchis will be speedily dried up, and the colours of the corolla beautifully preserved. In short, the result will be productive of specimens of superior appearance and value.

The long-living *Sedum* tribe, and the Heaths (*Calluna et Erica*), should be immersed in boiling water soon after gathering, which will prevent their leaves dropping off. If for curiosity, any species of *Sedum* be preserved or hung up, it will continue to grow for years. A specimen of *Sedum rupestre*, I gathered in 1839, on the cliffs at Chepstow, and then carelessly left in a damp room, actually put forth flowers in December, six months afterwards.

WILD FLOWERS OF JULY.

CHAP. XV.

CHARMS OF ASSOCIATION CONSIDERED—DRUIDICAL OAK IN THE FOREST OF DEAN — PLANTS IMMIGRATING FROM ROCKS TO RUINS—A SCENE ON THE WYE—STONECROPS AND OTHER SPECIOUS PLANTS OF THE ÆSTIVAL FLORA — SOLITARY MUSINGS — THISTLES, DROPWORKS, &c. — CERRIG CENNEN CASTLE AND CHEDDER CLIFFS—PINKS ON CRAIG DIGANWY—PLANTS GROWING ON RUINS—ADVENTURE AT OYSTERMOUTH.

“Time, Time, his withering touch hath laid
On battlement and tow’r;
And where the banner was display’d
Now only waves a flower!”

Whether presenting a bouquet of flowers with courteous smile to his lady-love, or moralizing as he hangs over the top-most turret of some princely ruin, to pluck a sweet gem that smiles amidst the desolation there, like an iridean tinge upon a dark cloud, the Botanical Looker-Out is ever at home. The charm of association is one of the most delightful links in the concatenation of life, and they know nothing who think the real lover of plants in their wild habitats, merely desires to arrange a flower among the “orders” of LINNÆUS, or domesticate it in the “families” of JUSSIEU or DE CANDOLLE. The searching botanist has the love of picturesque scenery in him perhaps more than most other persons, and the incitations of

his loved pursuit impel him to the wildest and grandest scenes. Nor does he less than the architect ponder among ruined abbeys and castles, and the plants he gathers there remind him in after days of his excursions, and even in the herbarium inspire poetical ideas and revive dormant images. The poet CAMPBELL understood this, when he apostrophized the "wildings of Nature" in one of his inspiriting lays—

"Of old ruinous castles ye tell,
Where I thought it delightful your beauties to find,
When the magic of Nature first breathed on my mind,
And your blossoms were part of her spell."

We all allow the raptures of the classical scholar as he fancies he treads upon the site of Troy, or paces the silent halls of the Cæsars in the "eternal city;" we admit the enthusiasm of the antiquary, who picks up a rusty spear-head, or, from some imperfect letters on an old green coin, would lead us back to the days of Carausius and the Antonines—and the mere tourist who really aims only to varnish all things with pleasure, still feels a glow or a thrill, as the great names of olden days echo upon his ear in the wild hall or dark cloister, where he is leading his tittering party. Nor is the botanist without feelings when he contemplates

"Trees that have outliv'd the eagle,"

or treads within the recesses of those Silurian woods which Professor PHILLIPS states are, "perhaps, as old as Caractacus," and within whose precincts are trees which we can prove to be *older* than his day. Not long since a Druidical oak met our view within the precincts of the forest of Dean—yes, Druidical! for its immense dark hollow bole measured in girth

nearly 60 feet;* on our way to it we had passed on the brow of the *Cy Maen* † huge overthrown masses that had once been Cromlechs, and the neighbouring parish of Stanton (stone-town), pointed out the tradition. High in the midst of an oak wood, but totally concealed from a stranger, yet stands that tottering stone of judgment (the Logan-stone), ‡ beneath whose awful shadow the Druid brought the unwilling criminal—and we fancied as we passed on either side the “*broad-stones*,” where still exists a sacred well, that we formed one of the procession, till, in imagination, we saw the priest dip his hands in the pure water in the hollow bole of the stone, and descend the nine steps that still remain to the overhanging Logan, which trembled in the eyes of the judges on their stony seats as the Druid solemnly raised his hands.

The antiquary who paces round and round the entrenchment on the cloud-capt hill, seeks in vain for something to connect his mind with the people who formed it—but the botanist still sees on the green turf the same flowers that met the gaze of the wild aborigines, and they give out the same sweets to the pure morning air now, as they did when the “iron hoof of war” relentlessly tore up the soil on which their prostrate beauties reposed. Even the castles and the abbies, now abandoned and overgrown, bear but the ivy, shrubs, and plants of the neighbouring woods and rocks upon them that have advanced to a new dominion, and know not the feudal tower on

* This king of the woods, the “Newland Oak,” stands in a field in the parish of Newland, Gloucestershire, about five miles from Monmouth.

† The Kymin Hill, near Monmouth.

‡ It now bears the appellation of the “Buckstone,” probably from some buck out of the neighbouring forest that may have sheltered there.

whose battlements they have clambered, from the mural precipice, washed by the fierce torrent below, from which they have immigrated.

Such reflections twined about us, as stepping from our boat in the declining ruby light of evening, we gathered a branch of the *Pyrus aria* from the lofty ruined arches of Tintern, and after *feeling* the bottom of the stony Wye in its rapid wiers, where we were caught by the ebbing tide, found ourselves within an hour of midnight engulfed as in a dark cavern, within the abyss, where the woods and rocks of Percefield on the one side, and the bare cliffs of Llancaut on the other, frown over the darkened river. None but the solitary heron, whom we disturbed in his fishing avocations, regarded us, as in silence and gloom we were vainly “looking out” at each turn for Chepstowe—and gluttonous as we are in the rambling way, it was not without pleasurable feelings that at last the grey spectre of Chepstowe Castle appeared high on its beetling cliffs, and the light on the bridge offered us the aid of its friendly beacon. We used to smile at the zeal of a geological friend, for whose researches no day was too long, and who scarcely ever tempted us out with him without there being *double tolls* to pay, from the impracticability of returning home through the turnpike gates before midnight. Alas! we ourselves have now oft touched upon the “little hour” beyond midnight ere we could return from our wanderings.

Morning saw us before the castle barbican, adorned with the same flowering banners as now hang upon nearly every castle in South Wales. Abundance of the bright red Valerian (*Centranthus ruber*), and the

pink flowers of the great Snap-dragon (*Antirrhinum majus*), at a little distance gave to the towers a bright ruby tinge, finely contrasting with the masses of yellow Lichen that had spread widely over the grey limestone rock, and time-stained its battered face. This is the month for castles, ruins, and rocks—dreary, desolate, and horrid as they often seem when the wind and the tempest roar about them, or the sheeted lightning blazes for a moment upon their crumbling fabrics—Nature, as if to solace their harsh fate, this brilliant month, smiles upon them in her most inviting manner, and lights up their abandonment with a floral illumination.

Can aught be brighter than the golden flowers of the various Stonecrops (*Sedum acre*, *glaucum*, *reflexum*, &c.) that now glare upon every precipice like so many mimic suns? relieved where the pure white *Sedum album* lifts up its argent corymbs on the stony glacis, while on the sea shore whole rocks are beautifully silvered with the brilliant stars of the English Stonecrop (*Sedum anglicum*). Now, on the limestone cliff, whose massy bulk stretches far along like a line of mighty fortresses, the beautiful *Geranium sanguineum* presents its deep crimson flowers, the perfoliate Yellow-wort (*Chlora perfoliata*) opens its bright petals upon the mid-day sun, the Marjorum (*Origanum vulgare*) presents a waving line of dark or light purple; masses of still brighter hue mark the habitat of the scented Thyme (*Thymus serpyllum*); and the Ploughman's Spikenard (*Conyza squarrosa*), with a multitude of tall yellow Hawkweeds, and the dense golden tufts of the Golden-rod (*Solidago virgaurea*), embellish the escarpments far and wide. How often

at this season, with steaming brow and panting heart, have I stood midway upon the burning precipice, and forgotten care and disappointment in the flowers around me; how often, on some rustic seat, in the deep woods, has the "hum of noon" tingled in my ears, as far from the haunts of men I was resting in oblivious luxury with the delicate Winter-green (*Pyrola*) in my hands, or some other plant *found for the first time*, and long sought in vain, while pools, visited only by the coot or wild-duck, gleamed mistily before my eyes, and the rustle of the squirrel, high in overhanging forest trees, alone met my ears. When the great Bell-flower or Throatwort (*Campanula latifolia*), first met my admiring gaze on the red sand cliffs of Shrawley, how dashed I down its steep to clasp the prize—and I have guided neophytic friends to bogs dotted with the flossy Cotton-grass (*Eriophorum*), whose enthusiasm would scarcely allow any but themselves to gather it. But these are dreams of botanical delight for ever past!

Contemplate we now the Æstival flora in its characteristic splendour. It is not till midsummer has fairly revealed itself, that the beautiful tribe of St. John's-worts (*Hypericum*),* present themselves with their bright flowers and curiously perforated leaves; the Dogwood (*Cornus sanguinea*), with its congregated

* This is a very showy family, distinguished in most instances by their curious perforated leaves, whence the French name, "le millepertuis," or many-pierced, from the leaves exhibiting minute or glandular perforations, when held up to the light.

"Hypericon was there, the herb of war,

Pierc'd through with wounds, and seam'd with many a scar."

The leaves of the Tutsan were formerly applied to fresh wounds, whence it derived the French name of "la toute-sain." The St. John's Worts, so called from their commencing flowering on the Baptist's day, in June, are generally set down in Floras as belonging to July only.

umbels of white petals, marks the same event, and next the Mallow (*Malva rotundifolia*) offers its inviting blue flowers by every road-side to unnumbered bees, while the yellow Vetchling (*Lathyrus pratensis*), sparkles amidst the yet uncut grass, and the tufted Vetch (*Vicia cracca*) lifts up its violet clusters high on the hedge amidst masses of scented honeysuckle. It is not till the height of summer that the numerous prickly race of Thistles (*Cnicus et Carduus*), lift high their bright but guarded flowers, the scented Musk Thistle (*Carduus nutans*), and the lofty Cotton Thistle* (*Onopordium acanthium*), meriting especial attention amidst the group—the Meadow Plume Thistle (*Cnicus pratensis*), in wet alpine pastures, offers also a spectacle far from inelegant. In marshy spots the various species of Ragworts (*Senecio*) now begin to present a specious aspect with their yellow disks and radiant florets, and the common and greater Knapweeds (*Centaurea*) lift their purple “hard-heads.” The rosy-tinted Dropwort (*Spiræa filipendula*), abundant on downs near the coast, and, like the “temple-haunting Martlet,” always scenting the purest air, now delights

* It is stated by Sir W. J. HOOKER that the great Cotton Thistle, which when in flower is a truly magnificent plant, from six to eight feet high, is cultivated in Scotland as the Scotch Thistle; but GARDINER, in his *Flora of Forfarshire*, says that the common Spear-Thistle (*Cnicus lanceolatus*), is the real *Scottish Thistle*.

“When roam’d the rude Celt through our island of yore,
And the old Druid worshipp’d beneath the oak tree,
And bleak was the aspect of Caledon’s shore,
With no flow’ret’s soft beauty adorning her lea,—

What plant was it then,
That as stern as her men,

While it braved the wild blast pricked the foot of the foe;
And bloomed in her dells,
On her steep rocky fells,

Where burns wimple clearly and dark rivers flow?

’Twas the THISTLE, that ne’er but ’mong freemen did grow!”

the eye of the summer wanderer ; and wherever a tiny rill or grass-grown spring weeps among the meadows, the Queen of the Meads (*Spiræa ulmaria*) lifts up an array of pale sulphur flowers, and fills the air with a cloud of fragrance.

That pink! ah how lovely! its sight, its scent recalls me to flowers more beautiful, that I had almost forgotten. It places me at once before that old wall at Llanbedie, in South Wales, where I gathered so many of the wild Pheasant's-eye Pink (*Dianthus plumarius*,*) for my own herbarium and those of others. I was then on my way to Cerrig Cennen Castle; burning was the day and oppressive in the extreme: I stopped to rest beneath the refreshing shadow of a huge spreading oak; nor shall I soon forget the refreshing draught of butter-milk sent to my parched lips by a kind pitying Welsh-woman. "Pleasure," said a cynic of experience long ago in my hearing, "*is the hardest work done!*"—how often have I found it so; and I found it on that day when I scaled the heights of Cerrig Cennen to gather its plants, and wound midway beneath its fearful crags, where the stunted yew clasps the crumbling rock, with eagle grasp, as if fearing to fall, and brilliant golden *Cisti*, or little sun-flowers, bright blue Bell-flowers (*Campanula*), the Kidney-vetch (*Anthyllis vulneraria*), and various

* This I have also gathered on the walls of Conway, North Wales. It has been confounded with the Carnation (*D. caryophyllus*), which grows on the ruined castles of Deal, Sandown, and Rochester, in Kent. The late DAVID CAMERON, of the Birmingham Botanic Garden, who cultivated both plants together, besides the satisfactory specific distinction presented by the different division of the petals and the serratures on the margins of the leaves, remarked that they have a different period of flowering, the flowers of *D. plumarius* appearing in June, while *D. caryophyllus* only commences flowering at the latter end of July.

beautiful Heaths (*Erica*), wreath the interstices and brow of the precipice.

Some years since, I purposely journeyed to scale the cliffs of Cheddar, Somersetshire, for the beautiful Pink (*Dianthus cæsius*), that adorns the brows of its tremendous crags. But I was too late to see it in flower. Still I was well rewarded in the sight of this pass of grandeur which I walked through, while new beauties and new sublimities called for my admiration at every step I took. Ivied rocks, battlemented turrets, tottering peaks, and impregnable buttresses rose in stern and frowning pomp before me; nor could imagination tint a picture exceeded here by the reality. Not unaccompanied by care and anxiety, mourning for the past and prophetically looking to the future with tearful glimpse, I yet here paused upon my career. I came only, indeed, to gather a plant, and strayed out of my way to do so; but as I looked up to the tempest-riven crags above me, I seemed to be hurried back to days of old when, perhaps, the sea rolled upon or broke through these lofty rocks. I gazed with awe upon such sublime monuments of past revolutions, and fancied the admonition of the Great Supreme warned me to be steadfast and immovable to the assaults of vice, as these time-worn precipices that rose land-marks of his power.

Every species of Pink is interesting and beautiful, and even *rare* in the present day, when extended cultivation leaves so few wild tracts to the botanist. A pink-strewed hill is now a page of poetry, and I shall not easily forget the interesting aspect of Craig Diganwy and Bryn Gosol hills, near Conway, when I saw them, in company with some fair companions in 1849,



CHEDDAR CLIFFS,
Somersetshire,
Habitat of the Cheddar Pink (*Dianthus cœsius*).



braided as it were with the exquisitely delicate blossoms of the Maiden Pink (*Dianthus deltoides*).

I have found an *Orobanche* or Broom-Rape with purple stem and light brown flowers, on many of the walls of the castles of Wales and Monmouthshire, which seems a curious habitat for it, since it is supposed to grow parasitically only on the roots of other plants, as the clover, &c.; and as its seeds are not winged, it seems difficult to account for its location there.* But the subject of the migration of plants demands more attention than it has received. No sooner now is a mansion or tower abandoned, than all the plants of the neighbourhood hasten to possess it, and those that can fly (as the seeds of the syngenesian tribe) have of course the best chance—but birds carry many seeds and berries, and thus in a few years a ruined castle assumes the semblance of one of the rocks around—peopled with most of their plants—but *none different*. So numerous do these sometimes become, that Professor SEBASTIANI has published a "*Flora Colisea*," containing a list of more than two hundred plants growing on the Coliseum at Rome. If we may suppose our own rocks to have been clothed in a similar manner from other pre-existing ones, it would be curious to trace, if possible, some central point from which *all* originated, unless, as contended by some botanists, there were *many* centres of creation, and

* I gathered this plant on the top of Martin's Tower, Chepstowe Castle, in 1839, and I have seen it also growing among ivy on St. Catharine's Isle, Tenby, as well as on the rocks of the Great Orme's Head, Caernarvonshire. In fact it occurs on many ivied ruins in Wales and Monmouthshire, perhaps parasitical on the roots of ivy. It must therefore be the *O. Hederæ*, Duby, though but little different in aspect from *O. minor*. According to HOOKER and ARNOTT, it is chiefly distinguished "by its yellow stigma cleft only two-thirds down instead of to the base."

thus a distinguishing feature given to characterize the floras of particular parts of the earth from the earliest times. If we admit with geologists a "Glacial Period," when only the summits of our present mountains were elevated above the waters, and the plants now upon these mountain summits then grew upon the shores of a widely extended ocean, it can have been only by degrees and in a long period of time that other plants have appeared by successive immigrations to clothe the hills and plains as they became fitted for vegetable growth. Hence some plants may have appeared at a much later period than others, even though disseminated by Nature. On this point I shall not, at present, dwell farther, but it is certainly interesting to the practical botanist to mark those plants that seem cosmopolites winging in every direction, while others, from peculiarity of structure or habit, seem fixed to that locality where the first beam of light dawned on their opening foliage.

The epiphytical plants of an old tower or ruin are frequently curious, and they serve to invest the mouldering arches with an adornment that renders them doubly interesting to the view of the artist, the poet, and even the botanist. For, besides the beauteous ivied tracery that almost invariably robes the broken wall, the ash saplings and wild roses that are sure to dangle there, and the wallflowers that perfume even the damp dungeon now exposed to the inlet of day, I have often met with wandering plants that gave a *peculiar* feature to the pile where they had taken up their abode. I remember Buildwas Abbey bright with the yellow flowers of the Barberry; the majestic turrets of Pembroke are overgrown with the silver

corymbs of the fragrant Alyssum (*Koniga maritima*); Newport Castle, Pembrokeshire, has all its walls bristling with the rigid spinous gorse; the ruined palace of St. David's glows with the crimson flowers of the Wall Germander (*Teucrium Chamædrys*); the gate of Battle Abbey, bears the solemn Night-shade in preference; and, odd enough, the topmost pinnacles of the fine gothic tower of Newland church, Gloucestershire, wave with a cluster of Cherry-trees! The rare *Arabis turrita* has never been found in England except on the old walls of Trinity and St. John's colleges, Cambridge, and Magdalen college, Oxford; and the inelegant Ragwort (*Senecio squalidus*) always affects ancient walls, as those of collegiate Oxford, and the rude buttresses by the old water-gate of the castle at Worcester.* Dr. BROMFIELD has intimated that Hyssop (*Hyssopus officinalis*), is perfectly and abundantly naturalized on the ruins of the beautiful and romantically situated Abbey of Beaulieu, in the New Forest, Hampshire, particularly on the walls and in the area of the cloisters; now as fully established and permanent as the wall-flower, calaminth, pellitory, and other mural plants that flourish on the picturesque remains of that once "proud abbaye."

The common Alexanders (*Smyrniurn olusatrum*), perhaps from having been cultivated as a pot-herb in the absence of better things, often presents itself on the mounds of ruined castles, as on those of Shrewsbury and Caermarthen, where I have observed it, as

* Although living for many years in the immediate vicinity of this spot, the plant had escaped my notice till kindly pointed out to me by the observant eye of the REV. ANDREW BLOXSON, a gentleman well-known for his acumen in the records of botanical exploration. I regret to say that from a reparation of the wall in 1848, the plant has almost disappeared from the locality.

well as most abundantly about the ruins on Craig Diganwy, near Conway; and the narrow-leaved Mustard (*Diplotaxis tenuifolia*), almost invariably shows itself on the fortifications of other days, as if it poetically clung to the recollections of the past. Those who have seen the walls of Southampton, Tenby, or Chester, must recollect its conspicuous aspect there, and it occurs in great abundance on every old wall at Haverfordwest, even on the fronts of houses, where its growth seems to be encouraged by pieces of wood hammered into holes of the wall. It may have been introduced by the Flemings, who colonized this part of South Wales. I was once detained by continued rain for some hours within the ruins of Oystermouth Castle; but the time that might otherwise have been tedious, was agreeably beguiled in examining the pretty *Cochlearia danica*, which, in the most luxuriant manner, festooned the walls of the almost sole remaining perfect apartment,—that over the entrance gateway.*

This incident recalls my recollection to "*the Mer-*

* Sir JAMES SMITH, in his *Tour on the Continent*, has well observed that "a plant gathered in a celebrated or delightful spot, is like the hair of a friend, more dear to memory than even a portrait, because it excites the mind without presuming to fill it." On this account I never fail to gather some plant as a memorial of the spot I have visited, recalling as it does treasured ideas in after days; and with almost equal pleasure I receive specimens gathered by dear friends in distant places.—

"I send the lilies giv'n to me,
Though long before thy hand they touch
I know that they must wither'd be,
But yet reject them not as such;
For I have cherish'd them as dear,
Because they yet may meet thine eye,
And guide thy soul to mine ev'n here,
When thou behold'st them drooping nigh;
And know'st them gather'd by the Rhine,
And offer'd from my heart to thine." BYRON.

maid," at Oystermouth. Ah! twice has "the Mermaid," at Oystermouth, received me within her dripping embraces. Once I was alone—the second time with two lady companions: both times, alas! overwhelmed in a deluge of rain after mounting the heights in front of the Mumbles Lighthouse. On these rocks several of the rarer plants grow in wild profusion, as the *Asperula cynanchica*, *Junipera communis*, *Euphorbia portlandica*, *Scabiosa columbaria*, *Rubia peregrina*, the hairy-leaved variety of *Cistus Helianthemum*, *Carex pauciflora*, and the Scaly Hart's-tongue Fern (*Grammitis Ceterach*.) We had scarcely got among these plants, and were engaged in gathering them, when a mist began to spread along the surface of old ocean. It increased to a cloud—the sea scowled, and became of a deep purple hue, while the wind swept along a rhimy shower to the heights we were patrolling. For some time we defied this, till the rhime increasing to positive rain, we were forced to shelter within the keel of a ruined boat that served as a signal station on the crest of the range of cliffs. Here we contemplated the darkened scene and mist-covered sea, with the oscillating vessels below, for some time in security; but our turned-up boat was not so water tight as comfort required, and big drops beginning to distil upon us, with not the slightest prospect of any truce or armistice on the part of the rain, we made up our minds to a sally from our position, and retreat, as we best could, to "the Mermaid." Meantime the paths had become excessively slippery—the rain made us anxious for the *nearest* cut, and, in defiling down the rocks, to effect this wished-for consummation, some of the party approached *nearer* to mother earth than

was quite consistent with stainless vestures. To be short and expressive, we were all in a sad draggle-tail plight ere we could shelter from the elemental out-pourings within the literally sanded cells of "the Mermaid," where all was cold and cheerless as the chrystal mansions of the Nereids themselves. But we soon contrived to raise the cheerful flame, and drying ourselves and our garments, amused ourselves with the pictured daubs upon the walls till the frugal refreshment the Mermaid had in store for us was placed before our view. This dispatched, we had nothing to do but to gaze upon the gloomy sea, the watery skies, the inundated ground, the faded prints upon the walls, and some old books of long byegone fashions forgotten except by antiquated "mermaids," till our Swansea vehicle drove up in the evening, and rolled us over the intervening space to the spot from whence with bright expectations, now sadly dimmed, we had started in the morning. As we rode along almost close to the sea, the waves in continued loud resounding plunges burst furiously upon the beach, as if even in our flight to remind us of the insecurity attendant upon all maritime adventure.

WILD FLOWERS OF JULY.

(CONTINUED.)

CHAP. XVI.

“FURROW-WEEDS” AND BRAMBLES — HISTORY AND ECONOMY OF THE LATTER — POPPY, CAMPION, AND OTHER CORN-FLOWERS — WEEDS OF WASTE SPOTS AND BALLAST HEAPS — OROBANCHES, DOCKS, &c. — INDICATIONS OF THE DECLINE OF THE ÆSTIVAL FLORA — ACCOUNT OF THE NETTLE — EVENING IN A GARDEN.

“Crown’d with rank Fumiter, and Furrow Weeds,
With Harlocks, Hemlock, Nettles, Cuckoo Flowers,
Darnel, and all the idle weeds that grow
In our sustaining corn.” KING LEAR.

We need not be quite so mad as Lear, but we must so far assume a portion of his madness as to seize upon some of the “idle weeds” placed by SHAKSPEARE in his coronal, as well as their congeners, to indicate the rank luxuriance of nature in her wild haunts, as well as to mark that there are thorns and lurid hues even amidst Flora’s dominion, and that “the poisonous Henbane springs up amidst sweet flowers,” as sorrow, anguish, and disappointment, must of necessity furrow the fair field that youthful anticipation sees expanding before its delighted view. We have previously expatiated upon Roses—but from direful experience we know full well that the brambly thicket is not to be escaped, nor as impartial observers could

we with propriety omit to indicate its existence ; for as PETER PINDAR has shrewdly remarked in one of his serio-comico epistles—

“ In our journey through life, my dear Joan, I suppose
We shall *oft* meet a BRAMBLE, and *sometimes* a Rose !”

And as to the truth of this supposition there can exist very little doubt. It must be admitted that there are too many Brambles in society, ever ready to apply a check to our progress ; but all that concerns us on the present occasion is to put the best face we can *botanically* upon the thorns and weeds that now in such profusion beset our path. Before we assume a crown of “ furrow weeds” it becomes necessary to “ look out” for the brambles now abundantly flowering and spreading out their little spinous arms in every hedge ; for, without caution, undoubtedly we shall have a *detainer* lodged against us ; or at the least a *deodand* will be levied on the luckless garment that by any accident comes in contact with the stern and surly Hook-bearer.

“ *Ferat rubus asper amomum,*”

says Virgil—the rough bramble shall bear spices—but we have not as yet arrived at that wished-for consummation. Still it may be possible perhaps to mitigate the sharpness of its thorns, by considering that it has a few redeeming claims upon our attention, and though we may not be altogether inclined to submit to the diet of “ apricocks and *dewberries*” (the latter being the blue fruit of the creeping Bramble, *Rubus cæsius*), assigned by the Queen of the Fairies to Master Puck, yet a leaf of fine Raspberries, a raspberry and currant tart, (not forgetting the cream,) or even a dish of raspberry jam, is by no means unpalatable.

In Sweden a rich wine is prepared from the fruit of the Dwarf Crimson Bramble (*Rubus arcticus*), which is preserved for the tables of the nobility; and LINNÆUS, in his *Flora Lapponica*, speaks with gratitude of the refreshment the berries had often afforded him. In our own country the humble Blackberry is by no means unsought or unvalued by the peasantry, and in the autumnal season numbers of children may be seen with hands all smeared with bloody stains, joyfully plucking the blackberries—a pleasing rustic employment, the remembrance of which may delightfully recur to them in after years of care. The blackberry, indeed, seems associated with truantizing in wild tangled lanes and heaths covered with furze and underwood, and what country boy is there but who has been tempted by it when sun-burnt Autumn scattered hips and haws plentifully in the hedges, to start out on a blackberrying excursion?

“When the fair apple, red as evening sky,
Doth bend the tree unto the fruitful ground;
When juicy pears and berries of black die
Dance in the air, and all is glad around.”

Even now the idea calls up pleasurable thoughts, and is not without botanical expectations. COWPER gives a capital picture in his own person of a truant boy, urged by love of nature and hope of adventure, to pass his bounds and make a day of it in blackberry-hunting.

“For I have lov’d the rural walk through lanes
Of grassy swarth, close cropp’d by nibbling sheep,
And skirted thick with intertexture firm
Of thorny boughs; have lov’d the rural walk
O’er hills, through vallies, and by rivers’ brink,
E’er since a truant boy I pass’d my bounds,

T' enjoy a ramble on the banks of Thames ;
 And still remember, nor without regret
 Of hours, that sorrow since has much endear'd ;
 How oft, my slice of pocket store consum'd,
 Still hung'ring, penniless, and far from home,
 I fed on scarlet hips and stony haws,
 Or blushing crabs, or berries that emboss
 The bramble, black as jet, or sloes austere."

But the bramble has other claims upon our regard. Even considered as a flower, the snowy corymbs of the *Rubus sub-erectus* have a pleasing aspect in boggy spots ; while in alpine localities there are species such are *R. Sprengelii*, that blush with all the beauty of fairy roses. The glandular brambles, especially, are far from inelegant, and shrubs are sometimes found bearing *double* flowers. Yet it must be admitted that few poets, with all their love of nature, have looked favourably upon the bramble, and ELLIOT almost stands alone amongst bards, in extracting a pleasant idea from it, as here subjoined.

" The primrose to the grave is gone,
 The hawthorn flower is dead ;
 The violet by the mossed gray stone
 Hath laid her weary head !

But thou, wild Bramble ! back doth bring
 In all their beauteous power
 The fresh green days of life's young spring,
 And boyhood's blossoming hour.

Scorned Bramble of the brake ! once more
 Thou bidd'st me be a boy,
 To gad with thee the woodlands o'er,
 In freedom and in joy."

The bramble has its uses in the economy of nature, perhaps more than even the beauteous rose, for it has

been justly observed, that the bramble-bush is a vegetable fortress to which the inhabitants of the air resort as to a fenced city;—here they build their nests in security, and rear their callow brood undisturbed within the intricate mazes of their thorny citadel, whose remarkable mode of growth, by its arching stem taking root at the extremities, soon presents an intermingled mass of thorny branches impossible to penetrate. The birds themselves often propagate their friendly protector by carrying its berries into pollards, whence, in time, a new briar dangles in the air, or from semi-prostrate willows into the water, producing a wild effect, not unworthy of the artist's pencil.

“The untutor'd bird may found, and so construct,
And with such soft materials line her nest,
Fix'd in the centre of a prickly brake,
That the thorns wound her not, *they only guard.*”*

In Mazunderan, a province of Persia, on the borders of the Caspian Sea, a particular gigantic Bramble-bush abounds, according to Mr. FRAZER,† which is honoured by the inhabitants from the perfectly impervious jungle it forms, and which is considered the best defence of the country from the inroads of an invader. These brambles bear the appellation of “Pehlewanha Mazunderanee,”—that is, the heroes or guardians of Mazunderan; and well, says Mr. FRAZER, do they deserve their title. Every peasant of Mazunderan constantly carries a bill-hook of steel to cut his way through the jungles, which even to the native would be impassable, but for this weapon to cut down the immense spinous arms of the guardian “Pehlewans”

* WORDSWORTH.

† FRAZER'S *Winter Journey in Persia*, vol. ii.

or Brambles. Wherever the bramble fixes its position it levies a tax on all passers—especially cattle and sheep, whose hairs and wool often give a sad ragged aspect to the hedge side, reflecting upon the slovenly farmer. Yet in the economy of nature nothing is thrown away, goldfinches, redstarts, linnets, and various families of warblers resort to this magazine of wool so providentially prepared for them; and, in the neglected “annals of the poor,” even here a last sad resource is presented, to save humble poverty from actual starvation. CLARE, the Northamptonshire peasant, has thus, in his homely strains, truly but feelingly depicted the occupation of the wool-gatherer:—

“In grief pursuing every chance to live,
That timely toils in seasons please to give;
Through hot and cold, come weather as it will,
Striving with pain and disappointment still;
Just keeping up expiring life’s last fire,
That pining, lingers ready to expire;
The winter through, near barefoot, left to pull
From bramble twigs her little mites of wool;
A hard-earned sixpence when her mops are spun,
By many a walk and aching fingers won.”

The Bramble, indeed, is peculiarly adapted for the poor man’s use; he cuts its flexile stems as binders for his thatching, and it finally binds down that mound beneath which he takes the long last sleep with his rude forefathers.

In a botanical point of view the species or forms of brambles are very difficult to discriminate, perhaps with the exception of the Raspberry (*R. Idæus*), the Dewberry (*R. cæsius*), and the common well-known *R. fruticosus*, of English Botany, or *discolor*, as gene-

rally now termed. Whoever examines into the subject, will however soon find numerous brambles not referable to either of these, and to draw more general attention to the brambles, which they well deserve, I here extract an analysis of the divisions of the British Rubi, taken from Dr. STEELE'S *Hand-book of Field Botany*. It will be thus seen that the Fruticose Rubi are physiologically divisible into those whose barren stems always *root at the extremity* and those that *never do so*. If the student then examines the barren stem of any bramble he meets with, he will find it reducible to some one of the following groups. To find the species he may either refer to my descriptions given in STEELE'S *Hand-Book*, or to the elaborate *Synopsis of the Rubi*, by Mr. BABINGTON.

ANALYSIS OF THE DIVISIONS OF BRITISH RUBI.

I. SHRUBBY, with the barren stem

* ARCHED AND ROOTING *at the extremity*.

- | | | |
|--|---|-----------------|
| <i>Cæsious</i> ; pruinose but not hoary;
with unequal prickles, and variable setæ often denuded | } | i. CÆSII. |
| | | |
| <i>Glandulose</i> ; covered with numerous aciculi and setæ | } | ii. GLANDULOSI. |
| | | |
| <i>Villous</i> ; generally closely hairy, the setæ, if any, hidden in the close pubescence..... | } | iii. VILLOSI. |
| | | |
| <i>Pilose</i> ; sparingly or unequally clothed with spreading hairs... | } | iv. PILOSI. |
| | | |
| <i>Hoary and Glauous</i> ; the leaves in general hoary-white beneath. | } | v. CANDICANTES. |
| | | |
| <i>Smooth and polished</i> ; generally devoid of hairs..... | } | vi. NITIDI. |
| | | |

** ERECT OR SUB-ERECT, *not rooting*.

- | | | |
|---|---|------------------|
| <i>Sub-erect</i> ; with 5-nate or 7-nate leaves..... | } | vii. SUB-ERECTI. |
| | | |
| <i>Erect</i> ; mostly with pinnate leaves, always white beneath | } | viii. IDÆI. |
| | | |

II. HERBACEOUS. Here are located *R. saxatilis*, *arcticus*, and *Chamæmorus*.

Recent botanists have greatly extended the number of British Fruticose Brambles, which in STEELE's work above referred to, amount to 38, exclusive of varieties; nor does Mr. BABINGTON indicate a much less number; Dr. BELL SALTER has, in HENFREY's *Botanical Gazette*, attempted to reduce them to 22, but evidently without considering or alluding to several described by me in STEELE's *Hand-Book*. There must always be this great difficulty in determining species in Brambles, *that the differences between varieties and their types is in many instances quite as great as between alleged species themselves*. And perhaps when the mode of growth of the fruticose Rubi is considered, this is hardly to be wondered at. Seedlings which may vary in some degree from their parent, are, by arching and rooting, perpetuated into a series of bushes, which, if undisturbed, may spread far and wide for a time, yet themselves according to soil or aspect, light or shade, offering variations more or less observable. In doubtful cases it is almost indispensable to observe the living plant.

The herbaceous brambles with annual stems are less variable in character, and are easily discriminated. The Stone-Bramble (*R. saxatilis*), which occurs in the woods of the Cotteswolds, and in other stony localities as far south as Lynmouth, in Devonshire, has very minute pale yellow linear petals, and produces small scarlet berries which assume very irregular forms, the fruit only appearing where the plant creeps upon the face of rocks exposed to the sun. *R. Chamæmorus* is a dwarf species, only occurring on boggy heaths upon

the mountains of Wales and the north. GARDINER, in his *Flora of Forfarshire*, says "the berries are called by the shepherds *Avrons*; at first they are red, but when fully ripe of a yellowish colour, juicy and nutritious."

The bright *furrow-weeds of the corn*, flaring before our view, have long demanded notice, and at length we must turn to them. We have reached the middle of July—the sun blazes in the heavens with intolerable splendour, no friendly cumuloid cloud with its fortress-like masses of vapour sails stately in the air, and not a breath of wind is stirring to fan our streaming and aching foreheads as we pass amidst the stately glories of the corn-fields, now just faintly imbibing their primary tinge, that will settle, in maturity, into that auburn hue so delightful to the eye as the pledge of plenty. There can be little doubt that Wheat had its origin in the East, but in what particular region it is now to be found in a wild state nobody can tell with certainty, and perhaps it was always solely confined to the care of man. But the "furrow-weeds"—what a splendid show they make among the corn, and how came *they* there? It is most probable that many have accompanied the corn in its progress from nation to nation, still keeping up that companionship they originally possessed. This is undoubtedly the case with the specious scarlet Poppy, which from remote ages has been associated with the worship of Ceres, and sculptured upon the statues of the goddess. It was an ancient custom, also, to offer Poppies to the dead, and OVID represents the Poppy (*Papaver somniferum*, probably,) as growing before the misty cave of Sleep. The association of the Lethean Poppy with

Corn seems certainly remarkable, if not unaccountable on philosophical principles, whatever may have been written by the poet or moralist. It has been suggested by some authors as indicating that sound and refreshing sleep, which is the usual accompaniment of, and necessary restorative to, tired nature, oppressed with the toils of cultivation. So it is apostrophised by Mrs. CHARLOTTE SMITH—

“ And thou, by pain and sorrow blest,
 Papaver, that an opiate dew
 Conceal'st beneath thy scarlet vest,
 Contrasting with the corn-flower blue.”

Taken in another light, it seems to exhibit the contrast of great show with little results, amidst unostentatious worth, ripening, almost unnoticed, into universal utility. But economically considered, the Poppy requires a *manured soil* for its luxuriant growth, and thus the most splendid varieties flame in the flower garden, while casual seeds scattered from these upon its confines, produce very indifferent corollæ. It thus providently follows cultivation, marking it wherever it extends, and as mitigating disease and closing the weary eye in slumber, the Poppies of sleep may deserve qualified commendation. The curious manner in which the unopened flowers droop towards the earth and rise upright in expansion, has been frequently noticed. HOMER has a simile from their drooping in rain :—

“ As brilliant *Poppies* overcharg'd with rain,
 Recline their heads, and droop above the plain,
 So sinks the youth.”

The Corn-Marygold (*Chrysanthemum segetum*), is another brilliant corn-flower, that where it prevails

gives a most splendid effect to the furrowed fields from the golden breadth of its rays (though rather indicative of a lazy farmer, especially in Wales); nor is the azure of the corolla of the Blue-bottle (*Centaurea cyanus*), another agrarian, to be exceeded in beauty by any flower of the parterre. The bright pink of the Saintfoin, the yellow racemes of the Melilot Trefoil, the purple heads of the Lucern, the roseate hues of various Clovers, the curious tall purple flowers of the Corn Champion (*Agrostemma Githago*), overtopped by the long segments of its hairy calyx, and the innumerable red flowers of the decumbent Restharrow (*Ononis*)* all now decorate the "sustaining corn" or its borders; while spots left fallow are sometimes excessively beautiful with the spotted stem and changeful blue and purple hues of the Viper's Bugloss (*Echium vulgare*), the cærulean eyes of the Borage (*Borago officinalis*), the paler blue of the star-like Succory (*Cichorium Intybus*), the argent blossoms of the Corn Chamomile (*Anthemis arvensis*), or the less specious but remarkable inflorescence of the Hare's-Ear (*Bupleurum rotundifolium*). Occasionally rare and beautiful plants gain a temporary entrance into arable ground, as the small yellow-flowered *Lathyrus Aphaca*, *Galeopsis versicolor*, or the fugitive *Veronica*

* There are two varieties of Restharrow, one (*O. antiquorum*) more erect and spinose than the other. The flowers are rose-coloured, numerous, and very beautiful, but it had best be only *contemplated*, for the clammy *feel* of the plant, from its glandular exudation, is very disagreeable. GARDINER, in his *Flora of Forfarshire*, has the following just observation upon this quality of the Restharrow:—"Though sometimes scentless, it generally has a rank disagreeable smell. The flowers are so handsome, that you are tempted to cull them for your nosegay; but when their nauseous odour comes in contact with the olfactory nerves, you discard it with a sigh, regretting that so much beauty should be coupled with so noxious a quality. But this, too, reads a lesson." True enough, the furrow-weeds of life had better be passed without handling.

Buxbaumii. Larkspur (*Delphinium consolida*), abounds in the corn fields of Cambridgeshire, and the bright-hued *Melampyrum arvense*, locally called "Poverty-weed," in those of Norfolk and the Isle of Wight.

Other common characteristic agrarian plants are *Ranunculus arvensis*, *Spergula arvensis*, the lofty Corn Sowthistle (*Sonchus arvensis*), with its sun-like flower, Venus's-comb (*Scandix pecten*), *Lamium amplexicaule*, *Antirrhinum spuria et elatine*, the twining Knot-grass (*Polygonum convolvulus*), as well as the Stinking Chamomile (*Anthemis Cotula*),* Wild Chamomile (*Matricaria Chamomilla*), the lowly Cudweed (*Filago Germanica*), and the monstrous Cotton-thistle (*Onopordum Acanthium*).

The Fumiter, or Fumitory, mentioned by SHAKESPEARE, as occurring in LEAR's coronal, is a plant common enough in gardens and corn-fields, of humble growth, and purplish ringent flowers. It was called the "*smoke of the earth*," for like smoke, says an old herbal, its sharp juice "maketh clere eyes and teres to come furth." Another common but more characteristic appellation for it is "Bloody-Man's Thumb," from the colour of the corolla. Several species occur, the Rampant Fumitory (*Fumaria capreolata*), whose flowers are paler, being the most remarkable. With the fumitory may be associated in the furrow the pretty little *Sherardia arvensis*, with its minute lilac cruciferous flowers, the blue *Anagallis*, Venus's Looking-glass (*Campanula hybrida*), the purple *Bartsia Odonites*, and the little Spurge (*Euphorbia exigua*).

* Dr. BROMFIELD remarks, in his acute observations on the plants of the Isle of Wight, (*Phytologist*, iii. 434,) that he has seen the standing corn in many parts of the island so full of this agrarian nuisance, as "nearly to hide the ground from sight,"—often nearly obliterating the corn crops.

“Harlocks,” or rather *Charlock*, a provincial name given to another of the furrow-weeds, is doubtless the *Sinapis arvensis*, or Wild Mustard, a plant far too flaming and unprofitably gay for any useful purpose, and detested by the farmer; yet in turnip-fields its golden streaks have often a fine artistical effect in the landscape foreground, however blemishing to agriculture in reality. The Black Mustard (*Sinapis nigra*), an allied species, stalks upon the banks of rivers a truly gigantic weed, yet not inharmonious when combined with patches of the blue *Vicia cracca*, or thick masses of the creeping Plume Thistle (*Cnicus arvensis*), whose innumerable purple flowers are gemmed with ringlet, copper, or peacock butterflies, waving their wings in the sun. This creeping Thistle, spreading in all directions, and a terrible infester of the borders of corn-fields and roads, and which in the æstival period lifts up its purple or white “touch-me-not” heads so conspicuously, tempting, however, at the same time, numerous flies and coleopterous insects to alight upon it, is what CURTIS has emphatically denominated “*the cursed thistle*,” and with the rank venomous spotted-stemmed Hemlock, now arrived at its utmost luxuriance, might well have been added to LEAR’s bitter emblematical crown.

A volume might indeed be made up solely from the weeds of agriculture, so numerous are the vegetable squatters that appear to dispute man’s possession wherever he turns up the ground. Some dodge his footsteps even across the ocean, and domesticate themselves upon his confines, so that weeds, like troubles, are ever attendant at his side. How strange that man, in his onward progress should break up the

beauty-spots of nature, and gather only noxious weeds about his home, too symbolical of the

“ Wilder'd spots choak'd up with sorrow's weeds,
That send around, alas, too many seeds ;” *

and which morally blight his hopes, and come up contrary to his expectations ! An American botanist has observed that New England has become the garden of European weeds ; so numerous do they swarm in some of the counties of Massachusetts, near the coast, that the exotics almost outnumber the native plants.† So in the Pampas of Buenos Ayres, in South America, a huge African Thistle (*Carduus cyanoides*), having by some means crossed the sea and established itself upon the plains, has now formed *Thistleries* like forests, extending for hundreds of miles, and in the flowering season completely obscuring the roads. When North America was first colonized, the Indians remarked a plant new to them as occurring at every white man's plantation, and to which accordingly they gave the name of “ Englishman's foot.” This was the common Waybread (*Plantago major*). So, in like manner, in the present day, Sir T. MITCHELL states, that wherever a sheep or cattle station is established in Australia, the common Horehound is sure to spring up in great abundance. Sir CHARLES LYELL, also, in his *Second Visit to America*, noticed many European plants making their way even to the banks of the Ohio, among which he notes the common Chamomile. Doubtless the same law of vegetable immigration has brought many alien plants to our own shores, to which, according to the length of time they have been

* CLARE.

† Quoted in LYELL's *Second Visit to the United States*, vol. i. p. 57.

associated with our recollections, or recorded in our Floras, they are considered as denizens, or by the too credulous botanist who observes them, stated to be "certainly wild." Of such undoubted exotic origin is the Thorn-apple (*Datura Stramonium*), often seen on dung-hills, the rough-leaved Borage (*Borago officinalis*), Purple Goat's-beard (*Tragopogon porrifolius*), Large-flowered St. John's-Wort (*Hypericum calycinum*), Caper Spurge (*Euphorbia Lathyrus*), Birthwort (*Aristolochia Clematitis*), and probably many others that now pass muster as British plants.

Ballast heaps and new embankments are almost every year contributing some fresh importation from abroad, or renewing some olitory herb that had been forgotten, and perhaps buried for years. In 1843 I observed a considerable quantity of *Lepidium Draba* on an embankment raised in connection with the new iron bridge just then erected over the Teme, at Powick, near Worcester, though the plant had been previously unknown in the neighbourhood, and it yet maintains its new position. Mr. JAMES MOTLEY discovered *Malva verticillata* in corn-fields, near Llanelly, in Glamorganshire, in 1845, and in considerable abundance. Various other instances might be adduced. In the summer of 1850 I found a great quantity of *Atriplex hortensis*, growing in the utmost luxuriance on the embankment of the Oxford and Wolverhampton Railway, at Tallow Hill, near Worcester, though I had never seen the species any where in cultivation in the vicinity. From what distance the soil had been brought I cannot exactly say, but as a tunnel and cutting is not far removed, it could not have been a very great way. Whether in these instances the seeds

of the plants had lain buried too deep in the soil for vegetation, until freshly turned up, or Nature's wild hand had thrown them hurriedly by a friendly wind from far off, to take advantage of the new conditions of fresh unexhausted soil thus presented to them, it is perhaps too difficult to say positively. All we know is that wherever new soil is turned up, and left exposed to vegetable competition—

———“ the flowers of waste
Planted here in Nature's haste,”

spring up on all sides in the most luxuriant manner, and soon make a rank bed of struggling crowded overgrowth.

Various plants of waste ground assume a half domesticated port, as if they had some claim upon the attention of mankind even after they have been discarded from his service, or forgotten by all but the village doctress. Such is the Vervain, which I have seen in Wales, lingering near the abandoned Logan-stone, and which is seldom found far from habitations; and Catmint and Horehound are similar “way-faring” plants. Alexanders (*Smyrnium olusatrum*) is pertinaciously attached to old ruins, or mounds anciently inhabited, where it testifies to former colonization; and Wormwood is often profusely abundant about villages or old farm yards, especially in Wales. Olfactory herbs may remain many years in abandoned garden ground, or escape from their confines, and in such cases it may be doubtful whether the plant be indigenous at the spot or not. I never saw such a rank growth of *fennel* any where as met my view on the cliffs about Llandudno, Caernarvonshire, in 1849,

bringing the lines of the American poet, LONGFELLOW, to mind—

“Above the lowly plants it towers,
The *fennel* with its yellow flowers,
And in an earlier age than our’s
Was gifted with the wond’rous powers
Lost vision to restore;
It gave new strength and fearless mood,
And gladiators, fierce and rude,
Mingled it in their daily food,
And he who battled and subdued,
A wreath of *fennel* wore.”

Nature herself presents occasionally lurid places of obscenity, and such weedy slums of defilement, as almost to realize an abode of the furies, or a spot where Ceberus might have poisoned the ground with his froth—such rampant ugly burdocks and foul-smelling hound’s-tongues crowd the darksome glen. Such a spot exists at Longwood Warren, near Winchester, and is thus described most graphically by Dr. BROMFIELD.*—“All the fetid, acrid, venomous, and unsightly plants that Britain produces seem congregated on this blighted spot, a witch’s garden of malevolent and deadly herbs, ready for gathering into her cauldron, which, for aught I know, may be nightly simmering and seething in this lone spot, as fitting a rendezvous for the powers of darkness on Hallowmas-eve, as their favourite Blocksberg, in the Hartz forest, for a Walpurgisnacht commemoration. Beneath and around the clumps of ragged moss-grown elder and hoary stunted whitethorn, the first in some respects itself a plant of power, meet shelter for the noxious brood it gathers about it, rise thickets of tall nettles and rank hemlock, concealing the deadly but alluring dwale

* *Phytologist*, vol. iii. p. 597.

(*Atropa Belladonna*), the fat dull henbane, the gorgeous foxglove of life-depressing faculty, the rampant nightshade, gifted with fatal energy in popular imaginings, and one at least of an uncertain and treacherous race, if free itself from the stain of blood-guiltiness; whilst, scattered over the thriftless soil, appear the black mullein with its lurid leaves, the caustic and grotesque arum, or wake-robin, the stinking black horehound, and the drastic mandrake (*Bryonia dioica*), which trails its gray-green cucumber-like shoots in singular abundance over the naked and stony surface. The smell on a hot summer's day from such a multitude of ill-favoured weeds as these, and more which might be mentioned, is far from refreshing, and quite overpowers the fragrant honeysuckle, the only sweet and innocent thing that lives to throw a charm over what else is but dead, dreary, and baleful."—Even nature has desecrated spots, abandoned to grief, contagion, and dejection.

A curious parasitical plant may sometimes be noticed in the summer in clover-fields, which merits attention, though seldom numerous enough to be considered an agricultural pest. This is the *Orobanche minor*, which, like all its congeners, appears at a little distance like an old withered plant, though sufficiently palpable and fleshy when examined closely. The flower in perfection is of a pale primrose colour, tinged and veined with purple, turning brown only in decay; the upper lip of the blossom as well as the calyx, taper-pointed bractea, and upper part of the zig-zag purple stem, is bearded with glands that exude a bright amber-coloured clammy but scentless juice. Similar glands cover the base of the stamens, while

the style is smooth. The long pointed curling bracts have frequently an accessory segment of varying length. The species of this genus are rather difficult to discriminate, and *O. barbata*, or *hederæ*, which in Wales is often seen on ruins parasitical upon Ivy, though taller, may possibly be only a variety of *O. minor*. I have seen it growing among ivy most abundantly on the rocks of St. Catharine's Isle, near Tenby, South Wales. Another tall and very conspicuous *Orobanche* (*O. major* or *rapæ*,) grows parasitically upon the roots of broom or furze, especially the former, rising high as the bush itself, with a singular aspect, and bearing many close-set flowers, often as many as seventy. The stem is swollen into a great juicy bulb at the base, and covered with brown scales, which are more distant higher up, and finally become bracts. The lower part of the stem is deeply tinged with brown, the middle pale straw colour, upper of a lurid purple. The corolla is purplish-brown, plaited, hairy-glandular on its exterior, upper lip almost entire, the lower in three wavy-plaited pointed segments, the middle one longest. The calyx is deeply divided, hairy, with long pointed segments, and the bracts are woolly, lanceolate, rusty, at length reflex. The germen is *quite smooth* at its base, the upper part only hairy-glandular,* as is the style and two-lobed stigma. The filaments are smooth at the base, but hairy-glandular close under the stamens. The style is at first concealed beneath the upper lip of the corolla, but is

* In June, 1836, I gathered several specimens of *O. major*, or "*rapæ*," among broom on Rosebury Rock, Knightwick, Worcestershire, and every flower was *filled with ants*, who seemed enjoying themselves on the sweet liquor within the corolla. Perhaps they thus assisted in the fructification of the plant.

afterwards apparent, the lower flowers being first matured. In this genus the styles are conspicuously exerted at an early stage of the flowering, and the broad disc of the minutely downy yellow stigma is reflexed to come in contact with the stamens; but scarcely is this process accomplished, than the upper lip of the corolla expands upon the stigma, while the lower lip curls upward, thus drawing the curtains upon the process of fructification, and enveloping the delicate ovary in a brown wrapper till the ripened seeds are ready to be evolved. I have observed the same process in *Lathræa*. The seeds are very numerous, and when examined with a lens appear vesicular, like minute fragments of scoriæ; they thus adhere to themselves and to the stem of the parent plant, remaining upon it often until the ensuing spring, unless accident upsets and breaks off the old withering yet persistent brown stem.

In some pastures, in June and July, the broad-leaved Dock (*Rumex obtusifolius*), appears very conspicuous, though generally with most of the other species of this inelegant family, confined to waste ground and puddly rushy commons, that seem like mendicants in the rude rags of neglect, or patched with the refuse of vegetation. There is nothing very tempting to the eye in the stocks and posts of such anserine parian places, where mud, knot-grass, and dirty discarded plumage accumulates around the shallow, green, and stagnant ponds, and rotting timber lies prostrate year after year—so turn we from them, leaving all the docks without any further docking on our parts. Yet on the sides of sequestered ponds or slow rivers, the great Water-dock (*Rumex Hydrolapathum*), with its

long taper lanceolate leaves, forms a fine attractive object in connection with the tall yellow Iris, or Flag, and the lofty Water-Plantain (*Alisma plantago*). The Golden Dock (*Rumex maritimus*), also, when the masses of its petals are tinged with gold and auburn, is a beautiful object, but it is not common, and chiefly confined to marshes. The acetose Docks, or Sorrels, are familiar to most persons from the common Sorrel (*R. acetosa*), being marked out by children in the meadows, who are delighted with its acid taste, and to the grown-up wanderer its leaf in summer is pleasant to regale upon. The smaller species or Sheep's Sorrel (*R. acetosella*), is a plant of hills and dry pastures where it flourishes in abundance, its hastate foliage becoming of a rich red colour as the summer declines.

The Agrimony (*Agrimonia eupatoria*),* a well-known simpler's herb, now exhibits its yellow spikes of flowers in most pastures that have been left for grazing,

*Agrimony is very generally distributed, and its golden spikes appearing after the hay-harvest, well mark the decline of the brightest period of the year. It is much gathered for medicinal purposes, the leaves having a slightly bitterish roughish taste, accompanied with an agreeable, though weak, aromatic flavour. The flowers are in smell stronger, and more agreeable than the leaves, and in taste somewhat weaker. They readily give out their virtues both to water and rectified spirit. Infusions of the leaves, which are not disagreeably tasted, may be drank as tea. Among the "vertues of Agrimony," writeth TURNER, in his black-letter Herball (1562), "the herbe or seed dronken in wyne, delyvereth men from the bloody flyxe, from the diseases of the liver, and the byting of serpentes." It was also one of the magic herbs of power, and its wonder-working influence is thus mentioned in an old English medical MS. published in the *Archæologia*, by the Antiquarian Society:—

"If it be leyd under mann's heed,
He schal sleepyn as he were deed,
He schal never drede ne wakyn
Till fro under his heed it be takyn."

The specific name, *Eupatoria*, refers to Mithridates Eupator, King of Pontus, a great concoctor of remedies in his day, and famous for his antidote to poisons.

marking the commencing decline of the Æstival Flo-ralia after the finishing of the hay-harvest; while the Bindweeds (*Convolvulus arvensis et sepium*), show their purple and white bells, like fairy cups bearing dewy nectar on every side, continuing far into September. The field *Convolvulus* scatters its pink-stained bells carelessly on the ground or upon sunny banks, but the great Bindweed mounts high up into hedges and willow trees, its large white corolla (flesh-coloured in maritime spots) seen from afar even in the dusk, and almost emulating tropical flowers in beauty.

But enough for the present of docks, plantains, tares, vetches, darnel, and other "furrow weeds," though we cannot entirely omit allusion to the well-known Stinging Nettle (*Urtica dioica*). This is one of those common and rough-looking plants generally disregarded as unworthy of notice; so that even the late professor MARTIN remarks, that "such vulgar ill-humoured plants may forgive your passing them by." But however dissightly the splenetic nettle may appear, and however unpleasant the contact with it may be, it is to be remembered that upwards of fifty species of insects, including a great number of caterpillars, derive their entire sustenance from this apparently useless plant; and as these insects in their turn provide for a variety of birds, and send forth numerous brilliant butterflies to adorn the face of nature, it is absolutely necessary that the plant they feed on should be able to afford them ample protection, and surround them with a castle of defence.—"Watch the beauteous *Vanessa Atalanta* butterfly, lovely as the rose over which she flutters—see her sporting in the balmy air as if she had derived her origin from

heaven, and was returning thither, But when she has to provide for her future progeny, does she deposit her eggs on the brilliant flowers where she spent her bridal?—No! she retires to the nettles, and there safely leaves the infant embryo of a future race secure amidst the armature of the *urticæ*. Thus a host of insects are sustained by an apparently useless weed, which is itself kept within due bounds by the caterpillars that feed upon it.”* The economy of the Nettle, then, merits the closest investigation. Its stings, as they are called, are extremely curious, and there is a striking analogy between them and the fangs of poisonous serpents. In both cases the wounding instrument is hollow, and conveys the poison by a channel from the secreting gland to the wound. In the serpent, indeed, the channel does not run to the point of the fang, but opens at some distance behind it; while in the nettle the perforation extends through the very point. A microscope of moderate power will show the stings to be highly polished and exquisitely pointed transparent setæ, furnished at their base with a kind of bulb, cellular and spongy within, in which the acrid poison is contained. Thus, when the point of the sting comes in contact with any object, its base is pressed down upon the spongy pedestal, the venom instantaneously darts up the tube, and pours its contents upon the unwary assailant. This “points a moral” not unworthy of notice. Touch the nettle ever so gently it stings with its usual acrimony; but grasp it stoutly, and no

* Quoted from a Lecture on the Analogies and Harmonious Associations of Plants with Animals, delivered by the Author before the Worcestershire Natural History Society; and published when he was Honorary Curator to that body, in 1834.

injury is sustained. Act upon the same principle with the *nettles of life*, and all petty annoyances will lose their power of mischief. “Grapple with difficulties,” says WITHERING, “and thus overcome them”—as indicated in the following lines:—

“Tender-handed, *stroke* the nettle,
And it stings you for your pains ;
Grasp it like a man of mettle,
And it soft as silk remains !
So it is with human natures,
Use them kindly, they rebel ;
But be rough as nutmeg-graters,
And the rogues obey you well !”

Probatum est. The popular idea, however, may be thus philosophically explained. The poison is ineffective unless introduced into a wound. The extreme tenuity of the sting catches the flesh of the hand, however gently it may attempt to touch the nettle ; but a rough unfriendly grasp disturbs its delicate mechanism, and ruptures the poison-bags;—the venom is therefore unable to flow along the orifice of the sting, and no injury is sustained.

The stalks of Nettles may be employed, like flax, for the manufacture of a coarse kind of linen, and this seems to have been formerly done to some extent, for “Nettle-cloth,” made from nettles, is mentioned by Lord BACON, in his *Sylva Sylvarum*. It is perhaps still manufactured in a homely way in some parts of Scotland, for CAMPBELL, the late author of the *Pleasures of Hope*, has asserted that he had dined from a nettle table-cloth, and slept on nettle sheets. Nettles are also mentioned as an ingredient in spring salads in an old MS. ballad entitled *Lenten Stuff*, in the

Ashmolean Museum, and published by the Shakspeare Society.

“Of Nettels lykwyse there be store
In sallets at thys season ;
For men be nettled more and more
With palltryse passynge reson.”

Even now in the north of England it is common to make nettle broth in the spring and early summer ;* and the following anecdote in exemplification of this, as well as the castigatory powers of the Nettle, may amuse those who may perhaps shrink from examining too closely the plant itself. The incident occurred sometime in 1839, at Bolton, in Lancashire.—A mechanic of that town having been out for a walk, seduced by the luxuriant aspect of a patch of very fine tall nettles, had filled the capacious pockets of his fustian jacket with them, intending to surprise the eyes of his wife with so alluring a present, and treat his household with Nettle broth. In his progress homewards, however, he encountered a policeman, no doubt fresh from the *green* island, who struck with the bulk of the pockets, collared the poor herbalist, and listening to no explanations, roughly dragged him into a shop, and commenced a search by diving somewhat precipitately into his pockets. He soon found there was *something there* that *ought not to have been there*, or at least rather different to what he expected to meet with ; so finding a warmer reception

* In DOVASTON'S account of Bewick, in *Loudon's Magazine of Natural History*, he describes the naturalist and engraver as collecting Nettle-tops in his handkerchief, “which, when boiled, he ate in his soup, methought with very keen relish.” Nettle-tops are considered to purify the blood when boiled in milk. A kind of Beer may be brewed from the young sprouts of Nettles boiled in water, adding to the liquid half a pound of sugar or treacle, with a little ginger for each gallon.

than he thought for, he felt the expedience of acting upon the principle of "paws off;"—somewhat quickly withdrew his hands covered with blisters, amidst the laughter of the bystanders, and truly feeling *rather nettled*, hastily retired from his first lesson in botanical exploration!

In Ireland, according to Mr. and Mrs. S. C. HALL,* the last day of April, in each year, is called *Nettlemas-night*; on this evening boys parade the streets of Cork with large bunches of Nettles, stinging their playmates, and occasionally bestowing a sly touch upon strangers who come in their way. Young and merry maidens, too, not unfrequently avail themselves of this privilege to "sting" their lovers—and the laughter in the streets is re-echoed even in the drawing-room!

But now, after this weedy, not to say *blistering* discussion, in the burning sun, too, we may surely be allowed a quiet turn in the garden; but it must be in the cool of the balmy evening, when the air is redolent with the fragrance of the Sweet Pea, the Honeysuckle, and the Jessamine;—when the last streak of ruby alone tinges the western sky—when all the sounds of garish day are hushed to repose—when even the fluttering swift has ceased its vesper scream, while the satin-winged moths are careering about the Red Valerians and Sweet Williams in ceaseless gyrations, and the tall Evening-Primrose, with its yellow campanulate wide expanded flowers, seems to offer a pale light to the noiseless footsteps of meditation.

* *Ireland*, by Mr. and Mrs. S. C. HALL, vol. i. p. 25.

EXPLORATORY NOTICES FOR JULY.

In this month many Botanical Explorators are located upon the margin of the stormy ocean, and many a fair foot paces to and fro upon the sandy or pebbly beach, inhaling with delight the invigorating breezes, or viewing the expanse of ocean with a thoughtful and melancholy gaze. To such, a slight notice of the SEA-WEED TRIBE, so easily preserved, and so beautiful when perfectly expanded, may not be unacceptable.

The organic structures generally called *Sea-Weeds*, are all of a cellular nature, belonging to the *Algæ*, in the Cryptogamic division of the Vegetable kingdom. The *Algæ*, or Flags, include all those aqueous productions, whether of fresh or sea-water, which have their fructifying sporules included within their frothy, slimy, or leathery fronds, or articulated filaments, from the flaccid rootless green scum that floats upon the surface or seems veining stagnant waters, to the enormous sea-tangle or *fucus*, with its woody stem, broad flapping frond, and roots whose curling fibres often enveloping fragments of shell and minute pebbles, float majestically along upon the bosom of the flowing tide. After a storm numbers of sea-weeds of the most brilliant colours and delicate texture often strew the stones of the shore, or may be found in neglected coves where they have been forced by the violence of the waves. To collect and preserve these

is a most interesting and exciting occupation, and many a wet day may be thus profitably past in their examination, which might otherwise have moved on leaden wings, exciting only mournful emotions or wearisome sensations. Patience is, of course, abundantly necessary in the careful laying out of the pectinated *Florina* tribe after gathering, and finally fixing them upon their papers, and it must be borne in mind, that every specimen except the most fragile are to be carefully rinsed in fresh water posterior to their collection on the shore. After this process, they in general preserve exceedingly well in the herbarium.

The sea is in no climate free from algaë productions, though they abound on some shores much more than others. Many species as the well-known common inflated *Enteromorpha intestinalis*, abound in fresh water, and in mineral springs—the sulphureous streams of Italy as well as the boiling springs of Iceland, having their peculiar forms. Very few exist out of water or not exposed to its drippings, but they often luxuriate upon damp walls. Thus extensively scattered throughout the globe the species are exceedingly numerous, and present a greater variety in form and size than is observable in any other tribe of plants whose structure is so similar. Some are so exceedingly minute as to be invisible except in masses to the naked eye, and require the highest powers of the microscope to ascertain their structures; while others revel in the depths of the ocean with stems exceeding in length the trunks of the tallest forest trees, some having leaves almost rivalling in expansion those of the palm. We must refer the student to HARVEY's excellent *Manual of the British Marine*

Algæ, from which the following extract may be interesting.—

“ In *colour* the *Algæ* exhibit three principal varieties, with, of course, numerous intermediate shades, namely, *grass-green*, *olivaceous*, and *red*. The *grass-green* is characteristic of those found in fresh water, or in very shallow parts of the sea, along the shores, and generally above half-tide level; and is rarely seen in those which grow at any great depth. But to this rule there are exceptions sufficiently numerous to forbid our assigning the prevalence of this colour altogether to shallowness of water. Several of the more perfect *Conserveæ* and *Siphoneæ* grow beyond the reach of ordinary tides; and others, as the beautiful *Anadyomene*, are sometimes dredged from very considerable depths. The great mass, however, of the green-coloured species are inconsiderably submerged. The *olivaceous-brown* or *olive-green* is almost entirely confined to marine species, and is, in the main, characteristic of those that grow at half-tide level, *Algæ* of this colour becoming less frequent towards low-water mark; but an olivaceous vegetation frequently occurs also at greater depths, in which case it is very dark, and passes into brown or almost black. The *red*, also, is almost exclusively marine, and reaches its maximum in deep water. When red sea-weeds grow above half-tide level, they assume either purple, or orange, or yellow tints, and sometimes even a cast of green, but in these cases their colour is sometimes brightened by placing the specimens for a short time in fresh water. The red is rarely very pure much within the range of extreme low-water mark, higher than which many of the more delicate species will not

vegetate ; and those that do exist degenerate in form as well as in colour. How far below low-water mark the red species extend has not been ascertained, but those from the extreme depths of the sea are of the olive series in its darkest form."

The olive series most abounds in the tropical seas, the red luxuriates in the temperate zone, while the majority of the vegetation of the Polar seas is green. The lowest forms of the latter, however, (the *Ulvæ*,) are equally distributed through all. Mr. HARVEY observes, that—"Owing to the large size and strictly social habit of our common *Fuci* and *Laminariæ*, a hasty observer might assume that in the British seas the olive series predominates, and such is undoubtedly the case if we look to individuals and not species. But he will be surprised to find on examination that our submarine meadows are composed, in the main, of not more than ten species of this race ; while the 300 or 400 others, of which the marine Flora consists, are scattered like weeds, and often occur in such small quantities as to escape the notice of any but a botanist. When we speak, therefore, of different types characterising different latitudes, we mean merely variety of form, not abundance of production."

WILD FLOWERS OF AUGUST.

CHAP. XVII.

LOVE OF ADVENTURE INHERENT IN MAN — HIS EQUAL
DEVOTION TO THE LOVE OF NATURE — PLEASURES OF
BOTANICAL HUNTING, WITH AN EPISODICAL STORM AT
LAKE LLYNSAVADDON—CHARACTERISTIC WATER-PLANTS
— NOTICE OF THE WHITE WATER LILY, LOTUS, AND
VICTORIA REGIA—CONTRASTED ASPECT OF THE HYDRO-
CHARIS.

“ Look on these flowers ! * * * * *
 * * * * *

They are from lone wild places, forest dingles,
Fresh banks of many a low and hidden stream ;
Where the sweet star of eve looks down and mingles
Faint lustre with the *water-lily's* gleam.”

MRS. HEMANS.

I remember hearing of a Phrenologist who unfolded to a very intelligent friend of mine, the momentous secret that he was fond of travelling ; and, when he was informed in reply, that the fancied wanderer seldom left home, he sagely remarked that he *would do so* under other circumstances than those in which he was placed at present. But the fact really is that the love of enterprize and exploration is inherent in the breast of mankind *generally*. This it is, and not merely the abstract love of science, that has prompted men to engage in the various expeditions of survey and discovery that have been undertaken, with a contempt of all danger. This reconciles the soldier and the sailor to the perils of their respective professions ;

solaces the youths who are leaving the home of their fathers to broil beneath a tropical sun: and the very emigrant who, with panting heart and tearful eye, is watching the last indistinct vision of his native shores, yet as he progresses towards

“Those blazing suns that dart a downward ray,
And fiercely shed intolerable day;
Those matted woods where birds forget to sing,
But silent bats in drowsy clusters cling;” *

fondly conjures up pictures of adventure and exploration, whose novelty shall help to erase the remembrance of his toils and sorrows. So it is in everyday life, from the truant school-boy, seduced to a ramble in the woods from the acquisitive love of spotted and marbled eggs, to the grown-up child, who, with his patent rod and morocco book of gorgeous artificial flies, sallies out to wade amidst brooks and babbling streams from morn to dewy eve—rewarded, perhaps, with a solitary *bite* or a glorious *nibble*! But no! if this *were* all, “might we *not* laugh, my friend,” as HORACE says;—but is there no joy in tracing the windings of the silver stream—now placid as if stilled to devotion—now froward, wild, and turbulent, as if the passions from Pandora’s box were struggling in its liquid folds—*with* or *without* a rod and line? †

* GOLDSMITH’S *Deserted Village*.

† So MR. SCROPE, in his *Days and Nights of Salmon Fishing*, says—“If a wilder mood comes over me, let me clamber among the steepes of the north, beneath the shaggy mountains where the river comes raging and foaming everlastingly, wedging its way through the secret glen, whilst the eagle, but dimly seen, cleaves the winds and the clouds, and the dun deer gaze from the mosses above. There, among gigantic rocks, and the din of mountain torrents, let me do battle with the lusty salmon till I drag him into day rejoicing in his bulk.” Why to such a scene among the steepes of the north we would gladly go, independently of doing battle with the lusty salmon, which we would leave to MR. SCROPE to provide for us, while we botanized, or transferred the exciting scene to the pages of our sketch book.

Ah! it is the love of nature that burns within our bosoms; the instinctive admiration of those woods, dark in shadow or hallowed by the coloured iris; those cliffs now lit up in gold, or gray in twilight; those ravines whose depths are hidden in foliage, and into which the river plunges with sullen roar; those landscapes with all their waters and all their inhabitants, that solemnly robed in the mists of morning, or splendidly revealed before the setting sun of evening, with all their associations, and all the thoughts and reflections they create and absorb, that charm, enchant, and enchain us. Whatever our avocations may be, whatever may be the object or the pretence with which we set out, when once under the open canopy of heaven, we are *free*; that machinery spreads before us in its simplicity and complexity, that requires no sighs, groans, or anguish, to keep up its movements; and that pure brisk air which the country only knows, is in motion to fan our foreheads, fill our lungs, and excite us to hope, thought, and inspiration! The love, then, of nature in her wild aspects, is common to all minds, and penetrates, more or less, to all breasts. the rude Indian of the Mississippi feels these emotions in his hunting grounds, and they instil delight to his untutored soul; nor does the English fox-hunter, arrayed in his scarlet uniform, who gallops twenty or thirty miles without ever seeing the fox he is pursuing, return for all that *bootless*, or without a flying glimpse of nature's changing pictures flashing upon his view—to say nothing of the *music* of the yelping hounds, the glories of a teasing fence, or the excitement of a *flop* into some cooling and meandering stream.

Now I am a *botanical* hunter, and have had my *falls*, taken my *leaps*, been wet to the skin many a time, and —received the grinning felicitations of my friends! This is all right; I am myself no crying philosopher (except when in a moody temper), I am by no means afraid of a *scratch*, literally or metaphorically, seize the Rose with its thorns—*take* the enjoyment with its *responsibility*, as the Americans say; but as poets universally admit that there *are* flowers wasting their sweetness on the desert air, it seems an assigned duty to me to gather them.

But where are we? I am perambulating the eastern base of the mighty Breconian Van, or Cadair Arthur,* and yet I see it not but as in a vision, for wreathed in the cloudy folds of a tempest, its haughty brow is involved in reeking vapour, which extends even to the pebbly verge of the Usk—it seems to stalk along, a vast and awful cloudy pillar! The opposing heights of the valley are worthy of their name—the *Black* mountains, for with their summits turbaned by rolling vapour, and their declivities black as midnight, they frown terrifically upon the misty and obscured waters of the lake Llyn-savaddon, now wrapt in slumber at their base. Thunder growls and echoes amidst the hollows of the mountains, the clouds curtain the sombre scene still more, and now as the moaning wind creaks the old oak boughs, and pauses—patters, sweeps, and tumbles the descending deluge. But a primitive Welsh cottage has sheltered me in its stony vestibule, whose hospitable entrance could not very easily exclude the “houseless stranger,” as wanting that barrier to intrusion known in English as a door;

* In Breconshire, about four miles south-east of Brecon.

and I had, therefore, a few fowls, pigs, &c., as my companions in this shelter, though there was indeed an inner *sanctum* to which I was careless to penetrate. —But what a beautiful scene has succeeded to the transient tempest; the sun has burst from the obstructing barrier, the rising clouds ascend the rugged heights of Talgarth, and in hoary masses fringe his purple brow—the vapours leave the misty lake, now they shroud—now they leave Skethrog's high arching hill, now they glide over huge Dervaddon's brow, and then slowly and sulkily they bend towards head quarters about the crest of the moody Van, who demurs to their further retreat. Suddenly the lake seems poured out in molten silver, lines of excessive brilliancy chase each other over its waters beneath the old tower of Llangorse, and pass gracefully as if in review order: the brilliant radiance spreads—scuds—flies; and now, at last, the fair expanse, calm as a mirror, with one lone green islet on its bosom, shines in mild and placid beauty, while active parties of swallows are swiftly and continuously sporting over its waters.

Let us approach its margin which teems with plants, lovers of the marshes and the waters. Here in profusion rises the tall and rare Great Spearwort (*Ranunculus lingua*), distinguished by its *tongue-like* leaves, and whose golden flowers, elevated so high, give it an aspect different from every other kind of ranunculus or buttercup known to the botanist. Here, too, grows the elegant flowering Rush (*Butomus umbellatus*), whose bright pink umbels, where they abound, (as they do by Avon's immortal stream), are a greater adornment to the banks of our rivers than any other wild British plant; beauteous though the margin of

old father Thames is in Oxfordshire and Berkshire, with the floating yellow blossoms of the fringed *Menyanthes nymphæoides*. How finely do the brown shaggy heads of the Cat's-tail, or *Typha*, marshalled in battalions, like grenadiers with hairy caps of the olden day, contrast with the coloured beauties of the *Butomus*, the spreading patches of bright blue from one or two species of *Myosotis*, or Forget-me-not, and the expanse of glowing red that undulates upon the rippling surface of the water, where a friendly troop of *Polygoni* (*P. amphibium*), or Water Arsmart, have boldly launched out their floating leaves and pretty flowers far out upon the lake, and as boldly many a dark humble-bee is booming about them, and peeping within their roseate petals. This *Polygonum* is a curious plant, it will grow readily enough any where, and spread forth its broad lanceolate leaves profusely; but it seldom flowers unless near water; and if it can any way get down to the pool, in it goes without hesitation, and covers the waters with its terminal rosy spikes of flowers, as if it legally claimed dominion there, and would maintain its claim. But the dark brown mace-like clubs or catkins of the *Typha*, or Reed-mace, so characteristic of most of our fens, lakes, and marshes, and gracefully undulating with the breeze their shaggy heads and ribbon-like leaves, as in the narrower-leaved species, merit a closer inspection.* The singular conspicuous brown catkin is, in fact a mass of fertile flowers, which, in maturity,

* These pistillate flower-spikes, conspicuous persistent objects in lakes and shallow ponds, are often erroneously called "Bullrushes" by country people, and are a favourite object of attraction to truant boys. In the Isle of Wight, according to DR. BROMFIELD, they are vulgarly called Black-puddings, Blackamoors, Black-heads, and Bacco-bolts, from their resemblance to rolls of tobacco, and the other elegant articles enumerated.

becomes a flossy mass of down, occasionally used for stuffing cushions; and on closely examining this down, it will be perceived, that amongst it is a countless number of seeds, each with a distinct feathery appendage, to waft it safely over those waters where it had its origin, and wing its way, through fields of air, to settle, and in due time adorn other waters in the same ornamental manner as its parent. The barren florets are yellow, placed above the fertile ones, and in the maturity of the plant disappear. The manner in which Providence has arranged the dispersion of the seeds is most remarkable, design being ever apparent that they shall not be easily destroyed after they have arrived by a long process at maturity. This is often particularly observable in plants growing in watery places. We have before noticed the "globose wig" of the Dandelion, and the Willow-herbs (*Epilobium*), present a varied structure illustrative of the same mode of dispersion. The seeds, however, are primarily concealed, and protected within long capsules, which it might be thought was sufficient for the purpose—but no! within the capsule and adjusted with the utmost elegance, each seed is seen provided with a plume, so close pressed that they present in the aggregate the moniliform aspect of the antennæ of a capricorn beetle! No sooner do the four valves of the capsule split at the summit, than the silken plumes distend, spread out their delicate tufts like rays of light, and instead of being immersed in the waters on whose margin they grow, either float about like buoys on the surface, or are raised aloft at the impulse of the gentlest breeze.

In thus dilating upon botanical phenomena, I have,

for a moment, lost sight of the beauteous lake of Llynsavaddon. But I must again glance at it as its waters breast its lone green islet, and bend round to shelter beneath the woody ramparts of Skethrog, at its western termination. Here scrambling down the wooded bank into the level of that below, I saw, for the first time, in its native loveliness, and almost oriental splendour, in its peerless stainless beauty, and countless argent globes, filling the air with a peculiar fragrance as they floated gracefully upon the waters—the WHITE WATER-LILY, (*Nymphaea alba*), and so vivid was the impression, so lovely did the spectacle appear, as the breeze ever and anon visiting the tangled recesses of the llyn, kept flapping the huge heart-shaped leaves of the lilies, that the remembrance of the scene has ever connected the Water-lily in my mind with poetical imaginings.

TO LAKE LLYNSAVADDON WITH ITS LILIES.

Silent and tranquil as a sheet of ice
 Bas'd on an emerald meadow rich and fair,
 As seeming bright and cold thy surface lies,
 And save those solitary firs, as bare;
 For all is lonely, not a boat is there
 To skim along the waters;—but how bright
 In long extending lines they wave and glare,
 Beneath Skethrog and huge Dervaddon's height—
 The sulky Van still keeps his forehead out of sight.

So Llynsavaddon, on thy shores I gaz'd
 In one bright interval from Llangorse tow'r;
 The landscape smil'd with beauty, the sun blaz'd
 With double splendour, I enjoyed his power;
 So, lately wearied with the pealing show'r,
 I stood; delighted to enjoy the beams
 Of that divine exhilarating hour;
 When rose the Lily on the lake:—who seems
 All lovely as she is, the fairy of the streams.

Up rose the Lily, the white water Lily,
 And the mild zephyr fann'd her emerald wing ;
 Along the water's undulation hilly
 She pois'd her snowy turban, murmuring,
 Half sleepy, and half loath so soon to bring
 Upon the wave her whiteness, sad she stood,
 A bridal half unwilling offering,
 Smiling and pouting in her dark green hood,
 While the broad drifting leaves upheld her lassitude.

But the sun calls, and she obeys her sire,
 And her white rays in negligence profuse
 She opens wide ;—complete in her attire,
 The orb of day with admiration views
 The white-rob'd beauty that his rays produce ;
 Around her, 'midst the leaves that flap and play,
 A *bevy of half-opening lilies* chuse
 Their various stations, clad in green and gray,—
 Her train, like orbs of gold,* glide o'er the watery way.

Bright lake ! thus beautiful with sunbeams chas'd,
 As on a darksome cloud a gleam of light :
 And with thy myriad silver lilies grac'd,
 Mimicking Ocean in his surgy might,
 When white and green his waves dance on the sight—
 I view thee as a scene in life's dull play ;
 An ornament, a moment to requite
 The tedious toils that now beset my way,
 The ills that *have* been borne, the griefs that must or may.

Graceful and majestic on the waters as the swan
 among birds, the white Water-lily cannot be exceeded
 for beauty among British aquatics, and its loveliness
 is heightened when, as the morning mist slowly rolls
 away, the globose flowers are disclosed opening with
 coy reluctance before the overpowering rays of the
 exciting and fervid sun. Indeed, truly as poetically,
 these charming flowers expand only in bright weather,

* The Yellow Water-lily (*Nuphar lutea*).

and under the influence of the unclouded sunbeams, closing towards evening, when they either recline on the surface of the water or sink entirely under it. Hence the author of the *Moral of Flowers*, has thus apostrophized this silver-crowned naiad :—

“Yes, thou art Day’s own flower—for when he’s fled,
Sorrowing thou droop’st beneath the wave thy head ;
And watching, weeping through the livelong night,
Look’st forth impatient for the dawning light ;
And, as it brightens into perfect day,
Dost from its inmost fold thy breast display.
Oh ! that e’en I, from earth’s defilement free,
Could bare my bosom to the light like thee !”

As the rose is the queen of the bower, so, undoubtedly, is the Nymphæa the empress of the lake, and thus reclining on her liquid throne she is well entitled to her Indian appellation “Cumada,” or, “Delight of the Waters;”—but there seems something so emblematical of *purity* about this lovely plant, that the warning of SHAKESPEARE not to paint it is singularly appropriate, and I shall not soil the petals of the fair flower by dilating farther upon its praise. The petals are excessively multiplied by the stamens becoming petaloid, and thus every gradation is visible between the fertile stamen, the narrow and the full-sized petals. Sir J. E. SMITH has stated the flowers to be destitute of scent, but I have often noticed the air to be laden with a peculiar brandy-like fragrance where numerous Water-lilies abounded. The carpel disappears after flowering, sinking to the bottom of the water, where the seeds lie scattered among the mud to rise and vegetate the next year.

The white Water-lily is not of common occurrence in the midland counties, though in the still waters of

the south it often abounds as much as in the bays and inlets of pellucid Alpine lakes. I have never seen it in greater perfection than at Llynsavaddon, and entirely filling some of the inner pools of Cromlyn Morass, near Swansea, where the morning air is loaded with its fragrance.—

“ Know that the lilies have spread their bells
O’er all the pools in our forest dells ;
Stilly and lightly their vases rest
On the quivering sleep of the water’s breast,
Catching the sunshine through leaves that throw
To their *scented bosoms* an emerald glow.”*

Many of the pools in Shropshire are beautiful with the white Water-lily, and the tributaries of Father Thames himself, in Oxfordshire and Berkshire, rejoice in its adornment, and even nearer London the sleepy Brent in its retired windings about Perivale, can show spots of liled beauty under arching boughs, charming as any fairy could desire to sport in.

The yellow Water-lily (*Nuphar lutea*), though not assuming the magnificence of her sister and sovereign, yet, as I have observed above, is often in her train, and even when seen alone in retired brooks, spreading its golden orbs upon the dimpling wave, forms by no means an unattractive object ; but is really beautiful when associated with the light purple flowers of the curious Arrow-head (*Sagittaria sagittifolia*), the corymbs of the great Willow-herb (*Epilobium hirsutum*), or the rich masses of deep purple formed by the spikes of the purple Loose-strife (*Lythrum salicaria*).

The Lotos or Water-lily of Egypt (*Nymphæa lotus*), was anciently much celebrated in the East, and was consecrated as the peculiar flower of the sun, who was

* MRS. HEMANS.

styled "lord of the Lotos." With its light foliage and large poppy-like rose-coloured flowers it is stated by recent travellers to spread itself over the city lake in the famed valley of Kashmir, presenting a spectacle of singular beauty. Its flowers and leaves are never covered by water. Mr. WERNE speaks of the Lotos as adorning the White Nile, shining with great luxuriance like a double lily. Its stellated flower opens with the rising of the sun, and closes when it sets. The same traveller remarks that the leaves—"dark green above and red brown below, with a flat serrated border, have a magnificent transparent vein; but become so shrivelled, even during the damp night, that in the morning I scarcely recognized those which I had overnight laid close to my bed on the shore. The ancient Egyptians must therefore have been quick in offering up the Lotos."

The blue Lotos (*Nymphæa cærulea*), with "azure skirts and vases of gold," a native of Kashmir and Persia, has also been often sung in eastern hyperbole, as a fit couch for the repose of the gods; and in China and Japan, various beautiful species of this favourite genus are cultivated in the tanks and ponds, for their beauty and delightful fragrance.

In the present day a new and interesting member of the tribe of Water-lilies has been brought before botanical notice, of extraordinary beauty and of dimensions previously unheard of in the vegetable kingdom except in the family of Palms, the leaves measuring above eighteen feet and the flower nearly four feet in circumference. This is the celebrated *Victoria regia*. HÆNKE was the first European botanist who met with this vegetable wonder during his

South American Travels, in 1801, and it is said that in a transport of admiration he fell upon his knees and fervently expressed aloud his sense of the power and magnificence of the Creator in his works! The earliest mention of the plant in print was in 1832, in *Floriep's Notizen*, where it was styled *Euryale Amazonica*. Little attention, however, was paid to it, till Sir ROBERT SCHOMBURGH when investigating the natural productions of British Guiana, again met with it in the river Berbice, in 1837, and addressed a glowing account of it with drawings and specimens to the London Botanical Society. He says—"we arrived at a part where the river expanded and formed a currentless basin. Some object on the southern extremity of this basin attracted my attention, and I was unable to form an idea of what it could be; but animating the crew to increase the rate of their paddling, we soon came opposite the object which had raised my curiosity, and—behold, a vegetable wonder! All calamities were forgotten; I was a botanist, and felt myself rewarded! There were gigantic leaves five to six feet across, flat, with a broad rim lighter green above, and vivid crimson below, floating upon the water; while in character with the wonderful foliage I saw luxuriant flowers, each consisting of numerous petals, passing in alternate tints from pure white to rose and pink. The smooth water was covered with the blossoms, and as I rowed from one to the other I always found something new to admire. The flower-stalk is an inch thick near the calyx, and studded with elastic prickles about three-quarters of an inch long. When expanded, the four-leaved calyx measures a foot in diameter, but is concealed by the expansion of the

hundred-petalled corolla. This beautiful flower when it first unfolds, is white with a pink centre; the colour spreads as the bloom increases in age, and at a day old, the whole is rose-coloured. As if to add to the charm of this noble Water-lily, it diffuses a sweet scent."

It now appears that this imperial flower occurs in all the great rivers tributary to the Amazon, often covering the waters with its gigantic foliage, compared by an observer to enormous floating tea-boards, (from the margin being turned up all round) to the extent of many miles, its large boat-shaped leaves forming a resting-place for the numerous tribes of aquatic birds that frequent those humid regions. It has also been observed on the still waters of the La Plata and Essequibo. It has now been successfully cultivated in England, both at Kew and Chatsworth, where, at the latter place, it flowered in a tank purposely constructed for it, in 1849. Professor LINDLEY has thus described the splendid corolla of the *Victoria Lily*.—"The flower itself when it first opens, resembles the white Water-lily, of a dazzling white, with its fine leathery petals forming a goblet of the most elegant proportions; but as the day advances, it gradually expands till it becomes nearly flat; towards evening a faint blush becomes visible in the centre, the petals fall back more and more, and at last, about six o'clock, a sudden change occurs; in a few minutes the petals arrange themselves in the form of a snow-white hemisphere whose edge reposes on the water, and the centre rises majestically on the summit, producing a diadem of rosy points. It then constitutes one of the most elegant objects in nature. Shortly after, the

expansion of the central parts proceeding, these points fall back; the stamens unfold in an interior coronet, the stigmas are laid bare, a grateful perfume arises in the air, and the great object of the flower—the fertilization of the seeds—is accomplished. Then fold inwards the petals, the flower closes, the fairest of vegetable textures becomes wrinkled, decay begins, and the flower-stalk withdraws itself beneath the water as if to veil the progress of corruption. But out of this decay arises a new living body; the fruit curved downwards swells rapidly, and in a short time a prickly seed-vessel is observed concealed beneath the floating leaves.” SCHOMBURGH mentions leaves measuring 6 feet 5 inches in diameter, with a turned-up rim 5 inches deep, but the largest of the Chatsworth leaves was about 5 feet in diameter. The flower-stalk, leaf-stalk, and the ribs of the leaves are armed with prickles, and contain large air-cells, by which the leaf is rendered very buoyant. A leaf of the Chatsworth plant supported a little girl nine years of age upon the water. Both in the wild and cultivated state the flowers exhale a very peculiar but most delightful odour.

With the imperial naiad, *Victoria regia*, may be contrasted the humble Frog-bit Water-lily (*Hydrocharis Morsus-Ranæ*) of our own ditches and slow streams, whose leaves are no larger than those of a violet, and whose crumpled white flowers have only three petals. Yet the economy of this almost unregarded tenant of the waters is not unworthy of notice, nor when closely examined is it devoid of beauty. Its floating reniform leaves are purple beneath, and it increases almost entirely by floating runners, so that

small retired pools are sometimes entirely covered with the thick-set foliage, affording an impervious retreat to thousands of *lymneæ* and aquatic insects. The stainless flowers are of so delicate a structure that they are injured by contact with the water, and instead therefore of floating on its surface, they are carefully provided with elevating stalks, around whose bases is a pellucid protecting bractea. About wild commons and shady untrodden lanes, little shield-like pools often appear, whose waters are entirely hidden, roofed over with a verdant covering of the *Hydrocharis*; and scattered about this emerald table appear the numerous white and delicate tri-petalled blossoms, as if Titania and her fairy court had there prepared a picnic banquet in the shadowy retreat. On such a picture I have gazed in the silence of a summer's evening, when (as these silvery flowers are long conspicuous in the twilight) the splendours of the broad rising moon has increased and harmonized the illusion of the scene.

WILD FLOWERS OF AUGUST.

(CONTINUED.)

CHAP. XVIII.

PILGRIMAGE TO TY DEWI AND RAMSAY ISLAND, ON THE
COAST OF PEMBROKE—FOG AND PERILOUS PASSAGE
ACROSS THE STRAIT—ASPECT OF AND PROSPECT FROM
“THE ORGAN”—LITTORAL PLANTS—SEARCHES ON THE
SAND-HILLS—BOG-PLANTS—ST. DAVID’S HEAD—STUDIES
FOR A NEOPHYTE AMONG THE TOPPLING ROCKS—WINDY
ADVENTURE AT ABERYSTWITH—SUNSET.

“I dash’d into the surge!—I pluck’d the Flowers
That on the sands in tufts are widely spread ;
The *Yellow Poppy*, bright amidst the show’rs
Of spray that hover o’er her lonely bed ;
The *Arenarian* sisters, green and red,
With glaucous *Spurge*, and *Sedum*’s brilliant crown,
Silvering the gloomy ramparts high o’er head ,
Sea-Lavender’s blue spikes o’erspread with down,
And *Thrift*’s pink dainty tufts in rustic gardens grown.”

MS.

THE botanical adventurer (more especially if under my guidance) must be prepared for all weathers : stand the brunt of brumal or imbibe the breath of Favonian breezes—pant on the shivering mural precipice, with ready hand, to seize its rarest, though, perhaps, unnoticed gem—leap amidst the intricacies of the quivering splashy bog—or dare the solitary sandy wastes, that in wearisome extent, spread along the verge of the ever boiling and pityless ocean. The

copying of the above quotation from a neglected MS., reminds me of the terrors of a companion, who once accompanied me on a summer excursion into South Wales. I was then paying my second pilgrimage to the shrine of St. David, to reap the benefit of the ancient declaration, that *two* journeys to *Ty Dewi*, the hallowed home of the Patron Saint of leek-crowned Welshmen;* should stand good in the heavenly account as equivalent to *one* to Rome; and having got this duly certified to my credit, I must needs also make a further move, by way of securing an extra *indulgence*, in visiting that island on the coast of Pembroke (Ramsay), where, it is said, ten thousand saints repose in their narrow cells!

This island being more than three miles from the shore, of course some assistance was necessary to reach it; but the regular boatman being unable to go, we accepted the offer of two young Cambrians to convoy us, not being then aware that one of them had never been on the island, the other only once, and both very inexperienced in nautical affairs. But all was bright, the sea calm and flattering, the air still; and the coast of Ramsay appeared over the blue waters, as if almost within a stone's throw of us. Off! was the word, then splash went the oars: the ruined chapel of St. Justinian nodded as we receded from it, nor did we, even in the ecstasy of excitement, think of saying for a moment—"my native land good

* The old monkish rhyme ends thus—

"*Roma semel quantum*

Dat bis Menevia tantum."

Or to Anglicize it in equally bad verse—

Poor Menevia (St. David's) gives at *twice*
What at Rome you get in a *trice*!

night!" I do not dislike boating, either on sea or river, but, I must confess, I rather prefer the *contemplative* part of the business; and on the present occasion, seated at my ease, calmed and soothed with the easy gliding motion of the boat, gave way to the most delicious sensations. This seemed really pleasure, and I sank into a profound reverie. A sudden exclamation roused me, and I thought we were approaching land; but neither Ramsay, Pembroke, St. David's, or any land, was at all visible—a dense fog had suddenly settled down upon the ocean, and we were completely enveloped in its folds. For a time we pushed rapidly on, till our rowers pausing, confessed to our dismay, that they were uncertain of their position, and feared we were drifting out of our course. The fog became denser and darker, with all the sullen gloom of a November day; breakers roared as if close to our bow, and every moment we expected to strike upon some black frowning rock, or without an atom of provision, be hurried past the island towards Ireland; or forced, uncertain where to steer, to pass the coming night cradled amidst the tumbling billows. Now and then, like a dark minister of fate, an aquatic bird swept past us on rapid wing: but, alas! silent as the murdered majesty of Denmark, that Horatio vainly abjured to speak. No hope appeared, as the fog still more densely and moodily darkened around us; our young rowers pulled off their coats, and prepared for the worst; vainly did my companion lament his rashness, and call a thousand saints, only for that once, to rescue *him*—I seemed left to my fate. Now, in despair, we raised the sail and went before the wind—then paused and suffered our idle canvass to flap, lest we

should be swept off too far. It seemed an awful moment, and it really was so : for all was uncertainty. The continued fog robed the heaving waters in uniform gloom, as now they rose up with the coming tide, wildly screaming in our ears upon half sunken rocks, while still we seemed progressing into a dark and horrid vacuity, where some hideous form might in a moment stand revealed, to bar our passage ; like the *Ænæas* of VIRGIL, in his progress to the infernal regions—

“ Unseen, unheard, we took our destin’d way
Through horrid realms, waste, silent, far from day.”

At last, when hope deemed dying in the socket, our boat as suddenly emerged from the stratum of fog about us, as it had suddenly entered it, and to our extreme joy, the cliffs of Ramsay frowned still ahead of us, though we had drifted far to the north, and just escaped doubling the island among the black rocks of the Bishop and his Clerks ; who, some old quaint writer has remarked, “ preach stormy doctrine.” To run no further risk I ordered land to be made forthwith, and when I once again extended my feet on *terra firma*, I never felt more pleasing sensations, or “kissed the consecrated earth” with such devoted fervour. Here, as a memento of my visit, I gathered the rare and elegant Fern *Asplenium Lanceolatum*, which grows in a crevice of the rocks a little south of the only house on the island, and mounted Ramsay’s most precipitous cliff, the ORGAN—rent, as if by lightning, into clefts, peaks, and pinnacles ; stained by lichens of a thousand years’ growth, in broad patches of white and orange, and bearded with dense masses of green and grey *Usneæ* and *Ramalinæ*. Fearfully low, the sea boils at the foot of the precipice ; and

moans, and screams, and piercing cries, from a million of Kittiwakes, Guillemots, and Gulls, forms that mingled chorus with the dashing billows, to which the name of ORGAN has been rather oddly applied. The proud Peregrine Falcon dashed above my head—the black sullen Cormorant flew past, to occupy the apex of an isolated rock in the surge—and, screaming in his circling flight, the pied Oyster-catcher kept still gyrating around us, among the rocks; while the vast ocean stretched before our view, dotted with black islets, in sombre magnificence. Turning towards St. David's, its battered tower glistened in the rays of the sun, and the sound between the mainland and Ramsay, again shone as a verdant lake; while the headlands of Pembrokeshire stretched in long succession southward, guarded by the outlying isles of Skomar and Stockam. We snatched a hasty repast at the sole house on the island, and again

“ My boat is on the sea,”

amidst gigantic waving *Fuci*, oscillating with the billows, and flapping their long cold flabby fingers upon the slaty rocks. This time we fortunately crested the billows unalarmed and unscathed, and thus escaped the unhappy fate of the late MR. ADAMS, F.L.S., of Pembroke, an unwearied botanist and conchologist:* who, in an adventure along this same dangerous coast,

* This lamented gentleman supplied Sir JAMES EDWARD SMITH with many rare plants, and his name is deservedly recorded in the classic pages of *English Botany*. According to DONOVAN in his *Excursions through South Wales*, MR. ADAMS perished in the sea, having ventured too far from shore, dredging for shells; and DONOVAN himself relates that while out on this same unfortunate coast, a violent squall rent the cordage of their vessel, and rendered it useless. “ Thus,” he says, “ for nearly an hour, unable to make any shore, we lay exposed to the rage of the contending elements in the open sea, expecting at every breath our little boat would upset, and plunge us into the merciless abyss of the deep.”

a few years ago, was unfortunately upset in his boat, and perished with all on board.

And now, the dangers of the sea escaped, we may contemplate at leisure the beauties that Flora scatters around, even on the extremest verge of her dominion. How inviting the gloominess of that cave, now left dry by the surges: among whose cool and hallowed recesses the Nereids might have sported, or Proteus slumbered unmolested! It is adorned with the deep green fronds and polished purple stalks of the Sea Fern (*Asplenium marinum*), whose chestnut-coloured *sori* nearly cover the alternate leaflets; the Scaly Hart's-tongue (*Grammitis Ceterach*) dots the recesses of the rock with its curious foliage:—all scales on one side, and light glaucous green on the other; and amidst the rills that weep in the dampest parts of the cavern, the light and truly elegant Maiden-hair (*Adiantum Capillus Veneris*) waves its slender and elegant tresses. The precipice above, which boldly lifts its impending brow above the retiring waves, is beautifully overspread with a thousand tufts of the Thrift or Sea Pink (*Statice Armeria*), whose aggregate rosy flowers, varying in tint to purple and almost white, descend among the declivities of the rocks to the very billows; there, too, in dense masses the white flowers of the Sea Campion (*Silene maritima*), nod; the crimson *Geranium sanguineum* here and there gladdens the solitary spot; the Sea Sandwort (*Arenaria marina*), trails its long succulent stems with stars of pale purple; and tracks of red and sparkling silver, mark the resting place of the White English Stone-crop (*Sedum Anglicum*). Here, also, often plentiful on the very margin of the Pembrokeshire cliffs, the pretty

little Vernal Squill (*Scilla verna*) lifts its scape three or four inches high, sustaining a small corymb of deep blue fragrant flowers, but getting into seed at this late period.

To the beetling rock succeeds (as is often the case on the Welsh coast) a waste of yellow sand, stretching far across the borders of the sea; often lifted into hills and rampires, matted and bound into consistence by the fibrous roots of the Sea Lyme Grass (*Elymus arenarius*), and the Sea Reed (*Ammophila arundinacea*),—and in places depressed into huge hollows and deep ravines—smooth, soft, and delightful to the tread, where no sound but the distant murmur of the billows at this time enters. But these sands are not waste and devoid of vegetation as the horrid deserts of Sahara; they glow with vegetative beauty, now developed to its utmost brightness, as if to scothe and cheer the wanderer who pants for the renovation of the enlivening sea-breeze. Here the artist might not vainly study the bright tints of nature's contrasts; in one place islets of *Thyme*, of the richest purple, mantle over the sand—in others brilliant spots of yellow are formed by the clustering flowers of the Bird's-foot Trefoil (*Lotus corniculatus*), while masses of primrose tints mark the social domicile of the Sea Chickweed (*Arenaria peploides*). Within reach of the bitter spray of the tide, wherever the rolling pebbles have been chafed by the surges, the Yellow Horned Poppy (*Glaucium luteum*) quivers her specious though fugacious petals, that soon strew the shore, quickly succeeded by that curious long curved seed vessel, nearly a foot in length, to which the colloquial appellation of *horn* has been given; close by her side the Prickly Saltwort

(*Salsola Kali*) lifts its rigid foliage; the Sea Beet (*Beta maritima*) trails upon the ground; the pretty pink flowers of Sea Milkwort (*Glaux maritima*) rise half concealed; the Purple Sea Rocket (*Kakile maritima*) boldly lifts up its bright lilac corymbose clusters; and beauteous above all, the Sea Holly (*Eryngium maritimum*) exhibits bright azure heads of armed flowers, guarded by sharp spinous leaves, whose veins of the brightest blue, present the most elegant aspect imaginable.

What a maze we get into amongst the sand-hills—occasionally immured in deep though dry cauldrons, where only sand and sky are discernible, all waste and dreary as an Arabian desert—then up the ascent again, sinking knee-deep, till the summit is attained, crowned with rigid rushes, whence a long line of tumbling billows break before the eye that long gazes with pensive delight. Several rare plants may be found by the Botanical Explorer in the hollows that occur within the exterior line of sand-hills and the shore itself, such as the Blue Fleabane (*Erigeron acre*), the purple Sea-Stock (*Matthiola sinuata*), from whence the beautiful garden varieties have been produced, the white scented spiral-flowered Ladies' Traces (*Neottia spiralis*), the yellow-flowered *Viola Curtisii*,* or the

* This might be properly called the Sea-Violet, being only found on sandy wastes by the sea-shore, and very conspicuous with its yellow-flowers, which seem to give it an affinity to the Mountain Violet (*V. lutea*). But HOOKER and ARNOTT now place it with the common Pansy (*V. tricolor*). I have observed *V. Curtisii* on the shore near St. David's, and very abundantly on Braunton Burrows, Devonshire, as well as on the sands at Barmouth, Merionethshire. Doubtless the Heart's-Ease (*V. tricolor*), varies much in the size and colour of its flowers even in a wild state, and under cultivation assumes a splendid and even regal aspect from yellow to the most intense purple, or beautifully mottled with various colours on its velvet petals. COWLEY has descanted on its splendor but

Senecio viscosus, its glandular hairy stalk studded with agglomerated particles of dirt or mould, making it appear with its expanded golden radiant flowers very like an African *Mesembryanthemum*.

Farther on, the sandy ridges are darkened with miniature thickets of the Burnet Rose (*Rosa spinosissima*), whose bright red fruit, now abundantly conspicuous, vainly tempts the eye, for its taste is insipid; amidst these pigmy bowers the glaucous Sea Spurge (*Euphorbia esula*), raises its light green umbels, singularly graceful, and its sister, the Portland Purge (*E. Portlandica*), appears with crimson-dyed stalks; these are relieved by the minute but dense masses of yellow flowers of the Yellow Bedstraw (*Galium verum*); while the pale clusters of Cynanchy-Wort (*Asperula Cynanchica*),* the beautiful pink Dwarf Centaury (*Erythraea pulchella*), as well as the broad-leaved variety, the purple and white hemlock-leaved Cranesbill, and the broad dingy purple bells of the Sea Convolvulus (*C. Soldanella*), are strewn about the sand as if dropt playfully by a bevy of sea-nymphs from their chrystal vases, ere they entered sportively the depths of the green ocean.

It not unfrequently happens that where the border

want of odour, in his *Poemata Latina Plantarum*, which may be thus rendered:—

Fairer than the sweet Violet of the spring,
Three colours in one blossom offering;
Silver, and gold, and purple, tinge her vest—
Happy had *perfume* join'd but with the rest!

But here floricultural art fails, and Nature alone gives or denies that fragrance that makes the country air so exciting and delicious to imbibe.

* It is remarkable that Sir J. E. SMITH, in the *English Flora*, affirms that the *Asperula Cynanchica* is not found in Wales, though I have myself met with it abundantly both in Pembrokeshire and Glamorganshire. It grows on the lime-stone cliffs opposite the Mumbles Lighthouse.

of the sands amalgamates with the green meadows of the interior country, that a pond of fresh water spreads its liquid mirror in tranquil beauty, strangely contrasting a calm unruffled surface with the angry billows that thunder in its environs. Here another race of plants appear, revealing the power of Nature to nourish new forms with the slightest change of aspect or circumstance. Amidst the shallow water sits the Long-leaved Sundew (*Drosera longifolia*) with viscid drops upon each leaf of purple woof; the Rose Pimpernel (*Anagallis tenella*) displays extremely elegant blossoms of white or pale red; the marsh St. John's Wort (*Hypericum elodes*) glistens in the moisture as if frosted with silver, showing faintly its curled corolla of gold; and the fairy-like Wild Rosemary (*Andromeda polifolia*), retiring as bashful beauty, blushes and shrinks amidst the humid mosses. This last, named by LINNÆUS from the fair Andromeda of antiquity, is a most beautiful and interesting plant, whose bright red or deep green narrow-pointed revolute leaves, glaucous beneath, and drooping roseate campanulate flowers, fix the eye of the wandering botanist upon it with rapt devotion.* Like every other hidden treasure it, however, requires to be sought after, being seated on mossy tumps among rushes and mud, where the botanist will scarcely obtain his prize without a shoeful of water. In the same habitat trails the Silver Willow (*Salix Argentea*), sparkling from afar, and bushes of the Dutch Myrtle

* When the corolla of the Andromeda drops off the stamens accompany it, and if opened, these appear like minute insects on its spotless surface, their curious structure (the anther two-lobed, each lobe terminated by an awn crossing each other,) giving them this singular aspect, combined with their deep chocolate colour. Although set down in the Floras as flowering in June, the Andromeda continues in bloom to September.

(*Myrica gale*) scattered in profusion around, fill the air with their cinnamon scent. In the wettest spots rises the princely Flowering Fern (*Osmunda regalis*), and on the surface of the water itself float the pale yellow flowers of the Water Milfoil (*Utricularia minor*), and the argent three-petalled blossoms of the Floating Water Plantain (*Alisma natans*).

In moody grandeur on the most westerly point of the mainland of Pembrokeshire, rises the trappoid crest of St. David's head. A curious outwork of greenstone tumuli range in a line between it and the more level country, like watch-towers in front of a fortress. The base of the gloomy head itself is covered with broken stones and ruined cromlechs; a stormy sea boils beneath, and amidst these deserted ruins of the past no other voice is heard but the wail of the blast and the harsh cries of flocks of choughs, who build in the interstices of the rocks. On this dreary crag I now stood alone, while the sun went down on the misty ocean. But though man had deserted it, and the Briton and the Roman had alike disappeared from old *Menevia*, it was not untenanted by plants that had probably flourished here even before the Druidical sway. The topmost crags were yellow with the flowers of the *Genista pilosa*, in great profusion; several rare *Carices* were apparent among the bushes, and on the edge of a rivulet weeping down the declivity of the hill, I gathered *Alisma ranunculoides*, *A. repens*, *A. natans*, and the very curious creeping Pepper-grass (*Pilularia globulifera*.) Here, also, the rare and local *Cyperus longus* has been found. Lifting my eyes from the herbage fringing the rivulet, and gazing from the protruding rock, the lone pool of

Gowrogg appeared glimmering on a wide extent of flat heath, like a phantom in the twilight. In this direction all appeared waste and denuded and deserted, only grey stones and patches of water—a perfect Ossianic scene—"a rock in the desert, on whose dark side are trickling of waters, when the slow-sailing mist has left it, and its trees are blasted with winds." And yet, on penetrating to the borders of the lake, all was *not* barren, but many a curious and beautiful flower rewarded my research. Gowrogg Pool is a chrystal gem in the waste around St. David's, where grey tempest-battered stones alone mitigate the barren treeless scene that extends far and wide. On its placid surface the silver flowers of the *Alisma* are scattered, and its margin is beautified by extensive spreads of the Bog St. John's Wort, fresh and bright as the keen winds and pure dews can make them.

In these sketches I have generally treated the subject playfully, as calculated to attract in a path often thought rugged and uninteresting. Yet within sight of the majestic ocean it is scarcely possible for any one to pluck a flower without feeling in some degree the kindlings of devotion within him. But on this subject a hint may suffice. A modern poet has well observed that

"The raging sea has music for all ears,"

and, certainly, were I called upon to inculcate a devotional lesson to an ardent neophyte, I should lead him to the margin of the mighty deep;—thence I should direct his steps to the massive headlands where the *Sea Lavender* loves to wave its azure spikes bright as the blue upon the wing of the Kingfisher—I should lead him on over shingles and pebbles, to pyramidal

crumbling rocks awful as those that shadow Llyn Cae, or seem to tremble in air, inaccessible to the most daring foot, about the chapel of St. Gowan's on the coast of Pembroke.* There, as we threaded a labyrinth of rocks over narrow ridges and slippery paths still growing steeper and more abrupt, where the lone Samphire† hangs over frightful abysses, the Sea Chamomile (*Anthemis maritima*) throws its silver star on the slippery edge of dismal cauldrons where the sea shrieks out of sight in chorus with the fiend-like yells of congregated sea-fowl of various species—or the Samphire-leaved Flea-bane (*Inula crithmoides*) crests the crumbling rock with a crown of gold—I should still advance to some point where an arch (such as lately met my view on the Worms-Head promontory),

* See the annexed woodcut, for a representation of the singular isolated craggy peak in the same vicinity, with the boiling ocean at its base, which is adorned with numerous tufts of the velvet-leaved Sea-Mallow.

† The Samphire (*Crithmum maritimum*), is remarkable in its maritime habitat—always on rocks overhanging the sea, yet generally some thirty or forty feet above the boiling surge, so that it is often very difficult for the botanist to scale the cliffs high enough to obtain it. Its pale succulent leaves make an aromatic pickle formerly so highly prized as to induce cliff-men to make a “fearful trade” of its collection :

———“ Nor untrembling canst thou see
How from a craggy rock, whose prominence
Half overshades the ocean, hardy men
Fearless of rending winds and dashing waves,
Cut *samphire*, to excite the squeamish gust
Of pamper'd luxury.” *Phillips's Cider.*

Samphire or sampire (probably a corruption of Saint Pierre, to whom this plant was dedicated, perhaps from its growing constantly on rocks), forms, as Dr. BROMFIELD has remarked in the *Phytologist*, a yearly exportation from the Isle of Wight for pickling. “The plant is collected, at great personal risk, by people called cliffsmen, who used to pay an annual tribute (now remitted) to the lord of the manor of Freshwater, for the privilege of taking both this and the eggs of sea-fowl, that breed in vast numbers in the stupendous chalk cliffs, which rise, like impregnable ramparts, to the height of 600 feet, at the extreme south-west corner of the Isle of Wight.”

broken through the rampart by some freak or convulsion of Nature, admitted by its romantic portal a grand and unbounded view of the extent of ocean advancing to the shore in magnificent array, crested with snowy foam. There, with my disciple, I would take my seat without a word!—But amidst our contemplations the heavens are blackened with clouds, a deluge sweeps down upon our devoted heads, the winds thunder and rave about us—the surge beats over us, the rocks topple around us before the hurricane; we are surrounded by the tide, and the shadows of eternity spread before our trembling view!

And now a truce to terrors!—fly we from them on the wings of the first favouring sea-breeze to rest on the eternal mountains whose majestic but tempest-worn forms rise boldly on the deep purple sky, while the last gleam of sunset gives a momentary but deceptive splendour to their topmost peaks.

Such a gale as I once had to wing my papers some years ago, might perhaps serve me now; and, therefore, as an incident connected with my botanical wanderings, I may state it. I was at Aberystwith, and having got together a host of plants from bog, mountain, shore and morass, I was engaged at my lodgings in drying them, and as plants give out much moisture in this process, I had been changing the papers in which the plants lay. I had no small quantity of *wet sheets*, and noticing that a breeze had sprung up, I fastened my papers as I thought at a corner of the window, and left them to flap in the blast while I penned my observations. Flap they did for some time securely, but at length the wind increased its fury—a thundering sound and loud exclamation

suddenly roused my attention, and looking up, I perceived all my papers flying to the four winds of heaven. Vain was any effort to recall them—they literally filled the street from end to end, and for half an hour amused the visitants of Aberystwith in chasing them about the town. It so happened that they were, for the most part, printed post folio sheets of speeches at a railway meeting at Manchester, which had fallen into my hands, and consequently excited greater attention as they fled about; while a gentleman in pursuit of some of them, which he was knocking down with his stick, was heard to say that he supposed some member of the Society for the Diffusion of Useful Knowledge had visited Aberystwith, though he thought he had hit upon a somewhat novel mode of *billing* the town. For my own part, when I thus saw *my* bills flying in all directions over the houses, and heard the shouts and laughter raised in the chase after them, I at once gave them up for lost, and attempted no rescue—away they dashed as if suddenly gifted with life—some went out to sea, others started in the direction of Plinlimmon and Cadair Idris, and for ought I know some may be circling in the air even now; I had thus the pleasure of unintentionally adding to the circulating medium—and had no *returned bills*!

A calm has succeeded to the angry furtive gale, the surgy billows faintly break upon the beach, and looking out upon the wide extent of the bay of Cardigan from the summit of Constitution Hill, the distant verge of ocean is irradiant with reflected glory. Long pencils of purple cloud rest like islet banks upon old ocean, and above them a broad band of ruby light

stretches far into the heavens, lightening off into the pure deep azure. The sun enshrined within a crimson haze slowly descends to his curtained pavillion, and his blood-red orb intensely brilliant sinks through the haze of crimson till bisected by the long deep purple stratus-cloud. Extending lines of topaz and ruby gleam along the sea as the sun sinks behind the cloud, and rests for a moment with his verge upon the waves—the splendid pageant is gone!

In the intervals of our excursions stray we for a moment to the garden, to note some of the glories of the advancing summer floral reign there, thus tempering the ardour of investigation, resting thought, even amidst floral sights, and preparing for new excursions.

Before our view the White Lily (*Lilium candidum*) still appears the most conspicuous flower, and like a queen of beauty reigns supreme over the parterre, diffusing odours of the most delicious kind. This and other white blossoms are now observable throughout the whole night. The lofty Sunflower, and various Convolvuluses are also in full perfection at this time; Snapdragons, Mulleins, Campanulas, Tiger-Lilies, and many others. “The force of Nature can no farther go,”—at least in this climate, and the magnificence of the flower border, with the exception of the lengthened reign of the princely family of the Dahlias, enters upon the wane at the close of the present month.

“The earth is one great temple, made

For worship, every where,

And its flowers are the bells in glen and shade,

That ring the heart to prayer.

A solemn preacher is the breeze,
At noon or twilight dim—
The ancient trees give homilies—
The river hath a hymn.
For the city bell takes seven days
To reach the townsman's ear ;
But he who kneels in Nature's ways
Hath Sabbath all the year."

WILD FLOWERS OF AUGUST.

(CONTINUED.)

CHAP. XIX.

ADVANTAGES OF AN ACQUAINTANCE WITH BOTANY TO THE TRAVELLER — ITS ASPERITIES COMPARED WITH THE ADORNED CLIFFS OF THE SEA-SHORE — NOTICE OF THE HEATH TRIBE IN THEIR MOUNTAIN HABITATS—VARIOUS BELL-FLOWERS WITH THEIR LOCALITIES — RUSHES — FLOWERS OF DECLINING SUMMER—SUNSET ON THE SKIRRID VAWR.

“Lo far and wide the glorious heather blooms,
Its regal mantle o’er the mountains spread;
 wooing the bee with honey-sweet perfumes,
By many a viewless wild-flower richly shed;
Up-springing ’neath the glad exulting tread
Of eager climbers, light of heart and limb;
Or yielding, soft, a fresh elastic bed,
When evening shadows gather faint and dim,
And sun-forsaken crags grow old, and gaunt, and grim.”

Hon. Mrs. NORTON.

In my cursory reading, while “*water-logged*” at a *WATERING-place*,” within the ominous period assigned to the influence of a celebrated *watery* saint, who has of late years contributed very largely to the stock of the tee-totallers, I met with the following quotation. It is from a clever sketch of *Germany and the Germans*, (1836,) by some anonymous “Englishman,” who, amidst his various acquirements, unfortunately omitted to obtain an acquaintance with botany; and

thus frankly admits the loss of pleasure he thereby sustained, as many other tourists and mere picturesque-seeing travellers have also done. "It is said that to be ignorant of a science is to be cut off from a source of enjoyment. The truth of this I was compelled, experimentally, to prove during my wanderings through these alpine provinces; for my limited acquaintance with botany prevented me from examining and *enjoying* the *rare* and *beautiful specimens* which every where abound."

Now this is substantially the argument I have taken up to prove in these chapters, that the tourist or wanderer who *is*, in *some degree*, acquainted with botany, greatly enlarges the sources of his delight, and has an incentive to action and movement, which the mere superficial observer is entirely deprived of. Yet strange to say very few general travellers know any thing of botany, and consequently whether in India or Persia, in Europe or America, the information they give on this subject merely amounts to the bare fact that in certain places myriads of the most beautiful flowers delighted the eye, or matchless odours from them filled the air; but further more their "limited acquaintance with botany," entirely forbids them to say. This negation is not only tantalizing but humiliating; it depresses curiosity, baffles exploration, and leaves imagination to draw upon error to an unlimited extent. The man who was unable (though no architect) to decide upon the order of the columns in a ruined Grecian temple, would be justly considered ignorant; and in the present day, surely, to know *nothing* of botany, argues at the very least, I should say, a defect in the organs of taste and percep-

tion.* The fair portion of human kind are so sensible of this, that almost every *lady* will be now found, more or less, conversant with botany; in fact, the majority of practical though unostentatious botanists are ladies; and this circumstance should induce them to exact the cultivation of the science from their sluggish admirers.

The language that botany employs may, at first sight, appear rather repulsive; but familiarity with it soon shows this to be little more than ideal, while the

* Unfortunately, a school of Botanists exists in the present day, which under the pretence of depreciating the Linnæan system, and exalting "the Natural," leads the Neophyte into such labyrinths, that the mere *designation* of plants is scoffed at, as if the knowledge of a plant's name would act as an insuperable bar to the attainment of any further progress in botanical science. So far is this absurd idea now carried, that I have met with gentlemen who had attended regular courses of Botanical Lectures with reference to the Natural System *only*, and yet, while conversant with physiological details, knew not how they were to proceed to ascertain the name of the humblest weed that grew by the way side! Thus their want of practical knowledge rendered them almost as utterly helpless in the field as if they had never studied Botany at all. Now I contend that one of the principal sources of pleasure presented by Botany is to know not merely the natural order, but the generic and specific name of every plant that meets the view of the roving eye; and as this necessary knowledge is obtained with most facility by the Linnæan system, I recommend the student to direct his attention to that *primarily*. He will have, by this means, a key in his hand to the most refined and exciting of all delights; and he can *afterwards* study the Natural System, if time and leisure be at his command. A key to the knowledge of names *must be obtained*; for the architect who examined a host of buildings *without learning the names of any of the parts of them he saw*, would act as wisely as the theoretical Botanist, who only attending to NATURAL ORDERS, finds himself incompetent to name, specifically, the first native plant that meets his view when Summer has wooed him to give up a leisure hour to an exploration of the hills and groves. Dr. DRUMMOND has well observed, that "according to an aphorism of LINNÆUS, the great and important step in understanding any science is to know things themselves. How can we reason about plants unless we know what these plants are? We must first have a knowledge of the things we speak, or write, or think, or philosophize about, before we can do any of these to a good purpose, and, therefore, the most useful and important introduction to any science is that which leads us fairly to a knowledge of the *things themselves*. Here the Linnæan system is pre-eminent over all other introductions to a knowledge of plants."

new images created, and the knowledge and pleasure attained, compensates abundantly for every asperity. So on the sea shore, the indented cliffs lift up their serrated ridges with forbidding aspect, and the contorted rocks, washed and wasted by the eternal boil of ocean, rise to view as sullen and barren reefs, pointed, ragged, and terrific. Yet when the tide has retired, and the quiet repose of a summer's afternoon has tempted one out to thread the rocky labyrinth, and bound from crag to crag, how different does the scene appear—how beautiful! In the recesses of the rocks a hundred or a myriad of translucent fairy pools have been left, their bosoms glistening with the quivering light that reveals the amber pebbles or pearly shells, in their transparent depths. There the crimson *Dasya* or *Plocamium*, and green *Ulva*, placidly floats; the singular *Asteria* flaps upon the cold stone; the *Fucus*, of various species, hangs its pods; and zoophytes, of numerous kinds (among which the *Sea Anemone* is conspicuous,) claim the excited attention. In other nooks, a host of *Lichens* colour the rocks with orange, mark them with sable, or stain them with bloody spots.* Some dry hollows are occupied

* A knowledge of natural phenomena often brings to light hidden facts, and sadly encroaches upon the domain of the marvellous. The "blood-spercle" stones, at the bottom of St. Winefrid's well, at Holywell, in Flintshire, were long appealed to as miraculous relics of St. Winefrid's blood, till the prying botanist resolved them into an *algoid* production, known as *Palmella cruenta*, which has been frequently taken for blood spilt upon the ground. Thus CAXTON quaintly says—

"In the welmes ofter than ones,
Ben found reed spercle stones,
In token of the blood reed
That the mayd Wenefrede
Shadd at that pytte
Whan hyr throte was kytte."

Caxt. Chron. Descript. of Walys.

I have myself in summer time picked up in damp hollows of the slaty

with the succulent *Samphire*, making verdant the arid ridge; in others the golden *Inula* scatters its showy star; the large glaucous foliage of the Sea Kale or Sea Cabbage meets the view; or the vivid purple of the scentless Sea Lavender, surrounds lone hollows of emerald-tinted water, with loveliness as unappreciable as unexpected. And thus, to the cleared vision, does botany exhibit objects that before, perhaps, were unregarded: because unheeded or despised.

Let us test this in a ramble up some lofty mountain, and look out upon the plants on our right and left, as we proceed in our steepy excursion. We cannot but be gratified, let us move in what direction we will. In this month the different species of HEATHS (*Erica*) appear in their perfection of beauty, making glad the wilderness wherever they present themselves.

“The tiny heath-flowers now begin to blow,
The russet moor assume a richer glow;
The powdery bells, that glance in purple bloom,
Fling from their scented cups a sweet perfume.”*

Sandstone cliffs are splendidly empurpled with the flowers of the Fine-leaved Heath (*Erica cinerea*), which often, too, covers the sides of mountains to a considerable height; while, wherever a weeping spring oozes upon the waste, the pale wax-like bells of the Cross-leaved Heath (*Erica tetralix*), droop in clusters to the ground. Sir WALTER SCOTT has finely depicted in Marmion, a sun-rise in a mountainous country, when the Heath was in flower, and the first golden rays fell upon the mountains—

bed of the river Dee, near Llangollen, such “reed-sperckled stones” as are here alluded to, the bloody tinge appearing on microscopic examination to be occasioned by a minute fungus allied to the *Chlorococcus* that reddens the snow in alpine regions.

* LEYDEN.

“And as each heathy top they kiss’d,
It gleam’d a purple amethyst.”

On the cliffs to the south of Aberystwith, on Cors Gochno, near Borth, and especially on Craig Breidden, in Montgomeryshire, among the vast wastes of the Berwyn mountains, in Merioneth, as well as on the wildest parts of Bromsgrove Lickey, Worcestershire, I have enjoyed many a wade and plunge among thickets of heath, that almost buried me in their purple folds, while the murmuring and angry buzzing of a thousand bees, I had disturbed at their flowery banquet, filled the air on all sides. Scarcely less beautiful does the glorious heather bloom on the bright and lofty empurpled buttresses, that support the broken cyclopean summit of the Monmouthshire “Sugar Loaf;” on the cat’s back ridges around Llanidloes, in North Wales, where from the bleak sides of Plinlimmon numerous torrents rave and plunge to form the united stream of the infant Severn; or on the sides of the solemn Black Mountains of Brecon, ever shadowed by trailing vapours, where dark as indigo the Talgarth Beacon looks down upon the lonely pool of Llangorse, and the solitary turret of Tretower in the valley of the gravelly Usk. Yet brighter still does memory paint the heathy heights in that matchless landscape on the banks of the Mawddach, between Barmouth and Dolgelle, where the broad river bathes rock and wood in beauty, and the sun of August almost fires the hills enwrapped in heath, that seem to burn amidst the hoary or dark lichenized rocks.

When in full flower, nothing can exceed the beauty presented by a near prospect of hills of blooming heather, while they offer to the way-worn wanderer a

fragrant couch on which he may recline in luscious idleness, and obtain "divine oblivion of low-thoughted care." BURNS has presented, in his own matchless way, the picture of a "bonnie moor-hen" flying from her pursuers, among the blooming heather, where—

"Sweet brushing the dew from the brown heather bells,
Her colour betrayed her on yon mossy fells ;
Auld Phoebus himsel, as he peep'd o'er the hill,
In spite at her plumage he tried his skill ;
He levell'd his rays where she bask'd on the brae—
His rays were *outshone*, and but mark'd where she lay."

From the extent of moorland in Scotland, that country has been generally distinguished as the "land of brown heath," and the clans of M'Donald and M'Alister bear two of the species as their device : hence clouds, storms, and impending dreary rocks, are images that unconsciously arise in our minds, when referring to the heather bells ; and a modern writer, when descanting upon the "moral of flowers," has exclaimed—

"Since I've view'd thee afar in thine own Highland dwelling,
There are spells clinging round thee I knew not before ;
For to fancy's rapt ear dost thou ever seem telling
Of the pine-crested rock and the cataract's roar."

The Mountain Heather of the Scotch Poets, which gives such a black aspect to the bleak hills of Scotland, is the Ling or common Heath (*Calluna vulgaris*), now properly separated from *Erica*, whose calyx as well as corolla is coloured, and whose elegant attire, generally diffused as it is in Europe, deserves every encomium it has received. The leaves are more or less pubescent, and sometimes quite hoary, when it has received the name of *ciliaris*, but this variety is not the *Erica ciliaris* of LINNÆUS, the beautiful Ciliated Heath

found in Cornwall and Dorsetshire. Though the amethystine hue is surely the appropriate colour of the blossomed ling, yet when occasionally white flowered shrubs appear among the purple, the effect is very elegant.

The beautiful Cornish or Goonhilly Heath (*Erica vagans*), flowers in August, and the Botanical Explorer who has the opportunity, should now devote a day or two to the examination of the Lizard District where it grows. There this lovely plant covers acres upon acres of barren moor with its snowy and pink blossoms, presenting a spectacle of the utmost interest to the geographical botanist.*

It is remarkable that the family of Heaths are confined entirely to the old world, and while but few species occur in the north, more than three hundred occur in the country about the Cape of Good Hope. These are splendid ornaments in green-houses, for they exhibit a surprising diversity in their flowers:

* The Lizard District has been well illustrated both in its picturesque and botanical features by the Rev. C. A. JOHNS, in *A Week at the Lizard*, an example of the interest attachable by observation to a single and retired tract of country however remote or seemingly barren. Besides the Cornish Heath, the very local Strapwort (*Corrigiola littoralis*), Hexandrous Water-wort (*Elatine hexandra*), Whorled Knotgrass (*Illecebrum verticillatum*), the Least Gentianella (*Cicendia filiformis*), &c. may all be found on the shore of the Loe Pool, a wide expanse of water near Helston, six miles from the Lizard, or in its vicinity. Near Penrose Creek, says Mr. JOHNS, the turf on the verge of the cliff for many miles of this coast, is in spring studded with countless sky-blue star-like flowers of the Vernal Squill (*Scilla verna*), and "in the months of August and September, the Autumnal Squill (*Scilla autumnalis*), a plant very like the Vernal species, but much less beautiful, comes into flower here and there along the coast, but is nowhere, except at Cudden Point, so abundant as to form a botanical feature. Its flowers are more pyramidal in their mode of growth, and of a dingy purple hue. The leaves do not appear until the flowers have faded."—Various Trefoils, as *Trifolium striatum*, *T. strictum*, *T. Bocconi*, and *T. Molineiri*, are also inhabitants of the Lizard District, in Caerthillian Valley.



where all the hues of red, pink, purple, green, and the purest pearly whites, tinge corollas swelled like a flask, narrow as a tube, diluted like a vase, or round as an air-bubble; and these again are hairy, silky, shaggy, glutinous, or polished with a finish superior to the finest glass or porcelain. Yet it is asserted that this favourite tribe of plants is by no means so handsome in its native country as when cultivated, as they there form scraggy shrubby bushes, to which the colonist boors have not even vouchsafed a name.

While, however, the Cape alone furnishes those delicate or showy heaths, so ornamental to the greenhouse, it is principally in the northern parts of Britain that any of the species are employed for economical purposes. There, ale is frequently made by brewing one part malt and two parts of the young tops of heath; the flowers furnish an abundant store of honey to the bees; besoms are made of its branches, faggots of its old stems, it is used to thatch houses, and forms a fragrant couch, that even poets have celebrated—

————— “The stranger’s bed
Was there of *Mountain Heather* spread.”

Its general use in the Highlands for beds, has suggested the following remark from the editor of the last edition of *Withering*, which, as a contribution to imaginative botany, may deserve consideration. “If it be true, as there is reason to believe, that the ancients were wont to repose on the leaves of particular trees, not doubting their powers of inspiration: as *Agnus-Castus* to compose the troubled mind, the *Laurel* to excite poetic fire, or the *Bay* to awaken visions of glory, why may not the *Heather-couch* not merely refresh the wearied limbs of the rough sons of

freedom, but inspire the noblest sentiments into minds scarcely less imaginative, and nothing lacking in credulity?"

From the Heather the transition is easy to the "Heathbell" of Cheviot, the "Harebell" of Scotland, the "Bell-flower" of England, and the *Campanula* of the botanist. This is a very beautiful and favourite genus, now everywhere exhibiting its trembling azure bells in exquisite perfection, but especially in hilly spots, on the sides of deep shady sandstone lanes, and other similar localities. The Canterbury Bells (*Campanula trachelium*), are rather plentiful on the margins of woods, and the Giant Throat-wort (*C. latifolia*) is very ornamental on the copsy banks of the rivers where it abounds—as the Severn and the Wye, and often opens its hairy throat in the bosky dells of the north. The most abundant species is the round-leaved Bell-flower (*C. rotundifolia*), often waving its delicate flowers on huge shattered masses of rock, or decking the tottering turret that has escaped the invasion of the hundred-handed Ivy. Hence this species is a favourite with poets: and SCOTT has described the "elastic tread" of his "Lady of the Lake," as not even disturbing the position of the nodding fragile Harebell. So CLARE, the rural Northamptonshire bard, mentions it with a just notion of its character—

— "The little Bell-flowers, pearly blue,
That *trembling* peep the shelt'ring bush behind."

The spreading Bell-flower (*C. patula*) is another beautiful kind, generally adorning woods, or their borders, in the midland sandstone districts; while the clustered Bell-flower (*C. glomerata*), affects calcareous hills, such

as the Cotswolds and the chalk strata, where it occurs in extreme profusion ; and on the cliffs of the Isle of Wight it is found in an exceedingly diminished state. But the Ivy-leaved Bell-flower (*C. Hederacea*), is, undoubtedly, the most exquisitely delicate of all. This fairy gem is mostly confined to mountain bogs, whose surface it besprinkles with the palest yet loveliest azure ; and hence the sight of it recalls a host of past rambles in secluded spots of Alpine beauty : it is, indeed, a true mountaineer, loving the splashy mossy spring, that feeds the bubbling tenant of the dark ravine below, where the brown Dipper (*Cinclus aquaticus*), is rejoicing in the pellucid stream, or the Ring-Ouzel runs hiding its snowy circlet as it treads the labyrinth of the stiff bilberry bushes. I have gathered this fairy bell amidst the dark turbaries of Plinlimmon, by Llynn Teivy and its sister lakes that fill the craters and hollows of the mountain above Strata Florida Abbey, Cardiganshire ; on the fort-like hills that barrier the course of the infant Severn about Llanidloes ; and in the summer of 1839, most profusely, as I pilgrimaged across a mountain between Pont-y-pridd and Caerphilly Castle, Glamorganshire.

The Ivy-leaved Bell-flower also occurs in great luxuriance trailing along the mossy glens bright with *Narthecium* and the Bog St. John's Wort, that border the sombre tract of Exmoor, in Devonshire. It is very plentiful in marshy spots about Hart-Knoll Woods, between Barnstaple and Ilfracombe, tinging the copsy scene with poetical loveliness.

The mountain Rambler must often have noticed, about this period, the relics of a custom once highly honoured in olden times—the *Rush-gathering*, an occu-

pation now entirely abandoned to the solitary mountain cotter, who, with his feeble *rush*-light, which he has himself divested of its epidermis and coated with fat, vainly attempts to throw a feeble ray in the long winter evenings upon the desolate aspect of his dark and damp habitation. Yet when Rushes strewed the floors of the palaces trodden by the Plantagenets and the Tudors, and when the fairest lady of the land had no softer carpet on which to place her foot in her apartment, the Rush (*Juncus*) was highly honoured, and the cutting and gathering of it, when it had attained its highest growth, was celebrated with delight by young and old, and the last load of its green pointed leaves adorned with showy decorations and preceded in gay procession. "More Rushes — more Rushes!" SHAKESPEARE makes a Groom exclaim at the coronation of HENRY V.; and as our ancestors rarely washed their floors, and carpets were unknown, it was necessary to cover, at least, the dirt upon the floors, and hence Rushes were employed for this purpose. HENTZNER, in his *Itinerary*, mentioning Queen ELIZABETH'S Presence Chamber, at Greenwich, says, "the floor, after the English fashion, was strewed with *hay*," meaning *Rushes*. The churches were strewed in the same way at particular festivals. In ancient times the parishioners brought Rushes at the feast of the dedication, and hence the festivity was called *Rush-bearing*. But even plants and flowers become divested in the roll of time of their celebrity, and rushes, banished from the palace and mansion, are now trodden only by the sportsman, the botanist, or the peasant. Yet to the latter, still, perhaps, as CLARE has intimated, they may add an item to the scanty

catalogue of his joys of recollection, showing that the humblest minds picture pleasing images to themselves, even from a tuft of rushes.

“Ah! on this bank how happy have I felt,
When here I sat and mutter’d nameless songs,
And with the shepherd’s boy and neatherd knelt
Upon yon *Rush-beds*, plaiting whips and thongs.” *

The Rushes, belonging to the natural order *Juncaceæ*, are a numerous and well-known tribe fringing the margin of forest ponds with their “dark” herbage, or covering marshy heaths in a characteristic manner with their sharp-pointed glaucous foliage. Twenty-two species have been enumerated as British. The Great Sharp Sea-Rush (*Juncus acutus*), forms a conspicuous feature upon the sandy wastes and “burrows” of the western coasts of England and Wales, its panicles being remarkable when in fruit, the capsules large, brown, and glossy. Its leaves are sharp enough to pierce the skin, and insects are often when flying empaled upon their points. The Club-rushes (*Scirpi*) are tall plants growing in watery places, and often in the water itself. One of the most common is the Bull-rush (*Scirpus lacustris*), so plentiful on the margin of ponds and slow-flowing rivers, where it grows from three to often eight feet high, its lateral brown inflorescence appearing near the tops of the lofty spongy stalks.

The round cluster-headed Club-rush (*Scirpus Holoschaenus*), is a tall and noble very local species, confined to maritime spots in the extreme western parts of England, and in fact I believe only now growing upon

* Before the introduction of earthenware into Britain, platters, made of twisted rushes, served instead of plates and dishes in the rural districts; and thin cakes, baked in the pan, were placed upon this simple equipage.

Braunton Burrows, Devonshire, near the estuary of the river Torridge. It is, however, difficult for a stranger to find the locality of this rush without specific directions. For when I was at Ilfracombe, in 1843, on making an excursion to "the Burrows" at Braunton, I found an extent of waste, sandy, and marshy ground disposed in flats, hummocks, and hollows—here arid and dreary, there green and marshy—to the amount of more than two thousand acres, and bounded westward by the sea. I made many traverses across it in vain; and some botanists, disappointed like myself, reported it as lost at the station by an inroad of the sea. A second visit, though fruitful in some respects, failed to reveal the *Scirpus*; until passing over the Burrows a *third* time, on my way to the singular embankment of pebbles called the Poppleridge, on the opposite shore of the estuary, I quite accidentally encountered the rarity that had so long eluded my search. The future explorer, then, may profit by my experience. Let the botanist keep to the southern side of the Burrows, within a quarter of a mile of the twin light-houses, but farther from the river than they are; here is a line of little pools and marshy hollows, abounding with *Teucrium Scordium*, *Littorella lacustris*, *Anagallis tenella*, &c. and two of which were almost filled up with aquatic mosses and a profuse growth of *Epipactis palustris*, finely in flower at the time of my visit. Following the line of these damp hollows *towards the sea*, they terminate in a little marsh impinging upon the sands, and here the rare *Scirpus Holoschaenus* grows luxuriantly, forming almost a close thicket when I was there, four or five feet high, but entirely confined to a

space about twenty yards in length. As the village of Braunton is itself three miles off, a field botanist not guided to the spot, might make many a ramble on the northern side of the Burrows, and about the central sandhills, without any attendant success. Braunton Burrows is a fine storehouse for a wandering botanist, with a glorious prospect on all sides. Other rare plants are allocated here, as *Viola Curtisii*, *Ænanthe pimpinelloides*, *Æ. silaifolia*, *Bartsia viscosa*, and patches of the beautiful silvery-leaved dwarf Willow, *Salix argentea*.

Summer! ah, where has summer been this year? is often a common exclamation at its close, for in ungenial years scarcely have we been able to obtain a glimpse of it, before it is already perceived waning away. Fine or wet, the flowers spring and fade, and the profusion of composite or syngenesious ones now perceptible, gives serious warning that the summer is declining and the days shortening. On the river side the Tansy (*Tanacetum vulgare*)* spreads its golden disc, gilding the bank; the specious-rayed Hawkweeds

* The golden yellow discs of the Tansy, though without rays, from their thick clusters give a gorgeous appearance to the river banks, where they congregate characteristic of advanced summer, and the impending close of floral glories. This old English plant noted for its strong and bitter yet not unpleasant scent, marks the change from the good old times when our great grandmothers made their own confectionary, looked to their housewifery as a morning amusement, spun their own sheeting, and knew more of the wholesome virtues of herbs than the toll-loll of a piano or the merits of the last new novel. *Tansy Pudding* was then an established dish, and Addison thus makes Sir ROGER DE COVERLEY mention it in connection with the sweet widow whose charms had entrapped the guileless old knight. "You must know I dined with her at a public table the day after I first saw her, and she helped me to some *Tansy* in the eye of all the gentlemen in the country." But public tables are now abandoned, as far as ladies are concerned—balls commence at nine o'clock, when our ancestors used to be abed and asleep, and *Tansy Pudding*, as being too homely a condiment, has gone out of fashion, almost as forgotten as the spinning-wheel.

muster numerous on the walls; the bristly-leaved *Picris echinoides*, and leafy grove Hawkweed (*Hieracium boreale*), in the woods; other species appear throwing a golden hue upon the aftermath of meadows, or limestone banks; and the Fleabane (*Inula dysenterica*), opens its specious yellow flowers upon the last days of August. Other signs are, alas! not wanting—the berries of the Mountain Ash are flushed; those of the water Guelder Rose (*Viburnum opulus*), and the *Rhamnus frangula* show their crimson beauties impending above the deep-flowing streams; the Willow-herbs (*Epilobium*) empurple the beds of rivulets and wet ditches, and the *Mints* are beginning to blossom.

At this period the great Mullein or Hag Taper (*Verbascum thapsus*), shows its “flannel leaves” and lofty spike of yellow flowers in full perfection, like a huge torch in the dusk of evening; and others, of the same species, flash gloriously by way sides or gardens. In certain spots the tall Dyer’s Weed (*Reseda luteola*), is very conspicuous, and the starry Scabious (*Scabiosa* or *Knautia arvensis*), lifts its flowers of regal purple high in air. The little Centaury (*Chironia centauria*), named from Chiron the centaur, about this time adorns many a bank with its bright pink flowers; and the hedges are over-run with the Ramping Fumitory, the brilliant violet clusters of the tufted Vetch (*Vicia cracca*), the pink flowers of the Everlasting Pea (*Lathyrus sylvestris*), and the conspicuous white bells of the great Convolvulus (*C. sepium*).

For a transcient moment the declining sun spangles the glorious scene—woods, meadows, cornfields stretching in far perspective, revel in his gorgeous radiance;

the deep hollows of the mountains are plunged into sombre shadow, while their solemn brows, in long succession, catch the sunny smile that rests not long upon them, lest it should illumine too much their sullen dignity. The setting sun is lost in a coloured haze of lurid crimson, and amidst the impending gloom of evening, and the rising mists that now slowly creep along the huge sullen mountain crowns, I find myself alone and deserted amidst the cliffs and fissures of the Skirrid Vawr,* struggling for egress from its masses of broken stones, wild thickets, wet ravines, and thick-set masses of entangled brakes.

* The Skirrid Vawr, or Great Skirrid, is a remarkable precipitous hill near Abergavenny, Monmouthshire, presenting in its contour the singular appearance of a couchant beast of prey with a cub at its feet. It would appear that at some distant period this lofty mass of old red sandstone has undergone the phenomenon termed a landslip, a huge mass having been precipitated from the summit to the base of the hill, and a steep precipice and yawning gap now intervene between the two masses. To add to the picturesque effect, the young cub, if the fallen rock may be so termed, is now luxuriantly overgrown with wood. This circumstance has been seized upon by superstition to impart a "holy" character to the hill, it having been imagined that this rock was "rent" at the crucifixion of Our Saviour, and so it bears the appellation of "The Holy Mountain" to this day among the people of the neighbourhood. Possibly this landslip of the Skirrid Vawr may have been coincident with the celebrated journey of Marclay Hill, in Herefordshire, noticed by the old chroniclers, and which is another member of the old red formation.

EXPLORATORY NOTICES FOR AUGUST.

THEY who study, in detail, the Sea Weeds, now so profusely scattered upon the sea shore, must consult the admirable *Algæ Britannicæ* of Dr. GREVILLE, and the beautiful figures of the English Botany, so necessary in examining this exceedingly intricate tribe. The *Fucales*, or Sea Weeds, have been formed into three sections—*Fucinæ*, *Florinæ*, and *Ulvinæ*. Of the two former, Professor BURNETT has observed, that “the British seas afford examples of most of the types of these two very extensive sections, which, though intimately allied, have been, from the colour of the fronds, distinguished into two groups, the *Florinæ* and the true *Fucinæ*: the first of which are of a membranaceous or cartilaginous structure, and seldom change much in drying. The second, or true *Fucinæ*, are more or less densely fibrous, and mostly become of a dingy black when dried. In the fresh state, likewise, the *Florinæ* have showy pink or purple fronds, the sporidia being also purple, while in the *Fucinæ* the fronds are of an olive green, and the sporidia black.”*

Dr. W. H. HARVEY, in his *Manual of the British Marine Algæ*, has arranged them in three divisions, according to their colour. *I. Melanospermæ* or *Fucales*—plants of an olive-green or olive-brown colour. *II. Rhodospermæ* or *Ceramiales*—plants rosy-red or

* *Burnett's Botany*, p. 107.

purple, rarely brown-red or greenish-red. *III. Chlorospermeæ* or *Confervales*—plants green, rarely a livid purple. He remarks that the green Algæ are the simplest in structure, that their lowest members are the least compound of all vegetables, some consisting of a single cell, others of a string of cells linked together end to end; and that the most developed of this group are not on a par with the least complex of either of the other groups. A good idea of the green Algæ may be obtained from the common curled gutting (*Enteromorpha intestinalis*), often nearly filling stagnant ponds with its floating pod-like fronds. These, at first fixed by a minute root, become detached and floating, and thus inflated, and of a lively green, curl in all directions about the pool they inhabit, presenting the curious aspect of the intestines of some destroyed animal. Finally they fade and become bleached nearly white. The *Confervæ*, also comprised in the green Algæ, chiefly inhabit fresh water in all parts of the world, and form the bright green glossy threads that float on the surface of ponds and ditches. "When young," says Dr. HARVEY, "the filaments lie at the bottom of the pool, but, as they approach maturity, they float to the surface, where they often lie so thickly as to retain within their meshes large bubbles of air, which they have disengaged during the progress of vegetation, and which is in great part oxygen. When shallow water lies for some weeks in summer on the surface of flat land, it often becomes completely filled with the threads of these plants, which, by their vegetation, counteract the evil effects which the decay of other vegetables under the water would otherwise dispense, and on the clearing off of

the water their relics quickly dry up without undergoing decomposition. In this case the matted threads are soon bleached white in the sun, and forms a sort of natural paper." This is sometimes called water-flannel, and where a shallow pool has been dried up spreads its white though flimsy sheet to a considerable extent.

The *Fucales*, or olive-brown Algæ, are often of great size, some of them surpassing in the length of their fronds the tallest forest tree. By far the greater number are found on tidal rocks, to which they are firmly attached by a root or holdfast, or sometimes anchor among loose pebbles. Though some grow in deep water, they seem rather intended to float near land, for which purpose they are furnished with air vessels, which enables them to keep their long but flaccid fronds in an erect position, the uppermost branches floating on the surface of the water. The reflux of the tide exposes them to the influence of the sun and air at recurring intervals, when they seem like strange stranded monsters, moving off their brown leathery limbs with the first return of the briny wave. The common *Laminaria saccharina*, from two to twelve feet long, is a well known inhabitant of the British coasts, on rocks between high and low water, forming a cartilaginous, lanceolate, undivided frond. *L. digitata*, with its leathery frond deeply divided into numerous segments at the end of a long stalk, is also a common object on the sea coast.

The *Rhodospereæ*, or red Sea-weeds, are the most numerous in species, but they never attain the size of the brown Melanosperms. They flourish mostly in deep water, and after storms are found scattered

about and in fragments upon the sea beach. From their colour and delicacy of structure, they are often highly beautiful. *Laurencia pinnatifida* is a common species frequently to be found, cartilaginous, and of a purplish red; and *Delesseria sanguinea*, almost as common, shows itself as a beautiful crimson plant bearing numerous transversely veined leaves of a similar colour, and delicately membranous substance. *Chondrus crispus* (the Irish moss of the shops), may be frequently found on rocky shores. It is of a horny substance, flat and crisp, repeatedly forked at the extremities, and of various pale shades of purple or green.

Most persons bring a *Fucus*, of some species, as a memento from the coast, and this, hung up, acts as an indicative hygrometer. To the zoologist the *fuci* are, by means, inutile. Dr. JOHNSTONE has remarked of the edible kind (*Alaria esculenta*), that "during storms great numbers of this large species are torn from the rocks and cast on shore, bearing with them a rich harvest to the naturalist. In the crevices of the matted roots, shells and worms, of various kinds and singular structure, find shelter, or a secure place for constructing their furrows; and many elegant coral-lines spring up between them, to appearance trees in miniature, but, in reality, cities full of living inhabitants. The more delicate and richly coloured Sea-weeds are parasitical on the stem; while the broad frond affords an ample field for many pretty shell-fish to feed and course upon."*

As a proof of what may be effected by industry and observation, Dr. HARVEY refers to the *Algæ Danmo-*

* Flora of Berwick-upon-Tweed.

nienses, published and sold by Mary Wyatt, Dealer in Shells, Torquay; which is a work of four volumes, composed of 234 *actual specimens* of as many species of Sea-Weeds, all beautifully dried, and correctly named. For a lady residing near the sea shore, the formation of a volume of this description is a most elegant, and cannot fail to prove a most interesting occupation. How delightful it is on the still calm day of an ebb-tide, to watch the green isolated pools, left among the dark rocks, all teeming with life. The transparent water shows the Star-fish slowly moving its flabby fingers along the bottom; the *Actinia* is putting forth all its tentacula; while thickets of Sea-weed, of various tints, wave their arms with solemn motion, as if measuring the time for the return of the tidal wave:—

“The wild wave’s thunder on the shore,
The curlew’s restless cries,
Unto the watching heart are more
Than all earth’s melodies.” *

The *Porphyra laciniata* and *vulgaris*, from the thin substance of their shining purple fronds, present an interesting and beautiful aspect when covering rocks with their glossy puckered and waved investiture. These fronds are extensively collected in South Wales, and when stewed down and reduced to a black pulp, are brought to market under the name of laver. This is considered a good sauce to mutton, and is even by itself thought to be good eating *by those who are used to it!*

* MRS. HEMANS.

WILD FLOWERS OF SEPTEMBER.

CHAP. XX.

NEW IMAGES ARISING IN THE MIND FROM THE PURSUIT OF BOTANY—RARE PLANT AT PENNARD CASTLE, ITS ASPECT, AND RESULTING REFLECTIONS—EXCURSION ON THE BLACK MOUNTAIN ABOVE LLANTONY ABBEY—AUTUMNAL LANDSCAPE—ACCOUNT OF THE MONOTROPA—CHARACTERISTIC FLORA OF SEPTEMBER—ECONOMY OF THE AUTUMNAL CROCUS—THE PARNASSIA PALUSTRIS—EVENING PROSPECT FROM THE LITTLE SKIRRID.

“ Where meditation leads,
By flowing stream, through wood, or craggy wild,
Lov'd haunts like these.”

“ The gloom of dark forests, the grandeur of mountains,
The verdure of meads, and the beauty of flowers ;
The seclusion of valleys, the freshness of fountains,
The sequester'd delights of the loveliest bowers.”

BERNARD BARTON.

I HAVE before remarked the fresh inlet of ideas opened to the mind by a minute attention to the floral gems that so gorgeously ornament earth's undulating bosom ; so that, even a moderate acquaintance with botanical science, places in the hands and unfolds to the view, as Dr. ARNOTT has remarked—“ keys which give admission to the most delightful gardens which fancy can picture—a magic power which unveils the face of the universe, and discloses endless charms of

which ignorance never dreams." I have constantly found the truth of this in all my rambles, and hence I feel great pleasure whenever I meet with any person willing to receive on his mind the impress of new images, before unthought of or unknown; and this happens not unfrequently.

"Whatever, indeed," says Dr. DRUMMOND, "will pleausurably tempt us to visit the scenes of nature, will bring with it the reward of happiness; and to this, I believe, is owing the enthusiasm of the angler, in following his favourite occupation. It is not merely the capture of a few fish that delights him, but that it leads him into the lovely scenery of the country, *wherever mountains rise and waters flow*, whether through meadows rich with verdure, or along the more sequestered course of rivers, bounded by heath-covered hills, among which they brawl over stones and rocks, or plunge headlong raging and foaming down the dark and gloomy precipice.—It is not the paltry taking of a few trout that constitutes the charm of the pursuit; this originates in the impressions formed on the mind by the various scenes of nature into which the angler is drawn in following up his pastime; and to feelings of similar origin we may trace much of the pleasure arising from the pursuit of any branch of natural history, and more especially that of Botany. It is true, indeed, that the study of the productions of nature may be delightful under any circumstances; and that the inhabitant of a crowded metropolis may pursue it with the greatest ardour; but still the investigation of nature in her own domain has additional charms; and however much we may admire the beauty of natural objects, of shells, for instance, in the cabi-

net of a naturalist, or in a public museum, would we not receive a still greater enjoyment, could we observe them in their *native habitats*? or in collecting them ourselves on the shores where they had been left by the ebbing tide, or thrown up by some recent storm? The pursuit of natural history, indeed, is in all circumstances redolent of pleasure to its cultivators; that is, when they are fairly warmed with the subject, and possessed of that degree of enthusiasm, without which every pursuit is stale, flat, and unprofitable.”*

In a tour through South Wales, I was once seeking for the remains of Pennard Castle, in the peninsula of Gower, about eight miles west of Swansea, where former botanists have recorded the habitat of a rare plant, the *Draba aizoides*, which is met with nowhere else in Britain. I had got into a mountain track among scattered white-washed cottages, overlooked by a rough old veteran of a church tower, that seemed, with its overhanging battlements and narrow loopholes, more like the refuge of beaten warriors than the hallowed receptacle for harmless bells; and hence obtained a direction to a time-worn brother on the steep hill beyond. In the little cemetery, with its humble mounds of rustic flowers, the old parish clerk was making hay alone, and paused at his labour, as I bent beneath the narrow gateway. “It’s a weary track, Sir, to the old castle,” said he, “and it is all so surrounded and choked up with sand, that it is not easy to get at; indeed, it is long since I have been there. But if you can wait till I have turned this hay, I will e’en go with you.” Having descended a long wearisome lane, we entered upon a wild and barren

* DRUMMOND on *Natural Systems of Botany*, p. 92.

assemblage of sandy hummocks, among which I looked for some time in vain for the castle; and the old man assured me that a town formerly stood here, which had been overwhelmed with sand, wafted over from Ireland in one night, and at times he said part of the walls and houses were visible. I did not attempt to combat a tradition, which seemed a favourite theme with him, and in proof of which, he alledged the sand here to differ from any in the neighbourhood, but looked out for the plant I had in view, and we had scarcely reached a ruined pointed arch leading to the enclosed court, when I perceived upon the tower that stands upon the very verge of a limestone rock, the object I was in quest of, growing there in great profusion and luxuriance. The old man, attentive to my motions, soon assisted me in gathering specimens, and I noticed that he filled his own hat also; for he remarked that it was strange that he had never before observed the plant himself, and he would now cultivate it in his own garden. As it is an early flowerer it is an acquisition to any rock-work, and if, at a future period I may find the flower diffused from garden to garden, by the care of the old clerk, I shall not have pointed it out to him in vain; for what pleasing images may arise in a host of breasts from one favourite or remembered plant, even in a cottage garden.*

* The rustic names of garden flowers seem in many instances suggestive of pleasant thoughts, or olden remembrances of poetical colouring, quite different to the botanical vanity of the present day, which in its records of new flowers introduces a barbarous nomenclature that will one day require an Encyclopædia to unravel it. Although the memory of some of the saints, like that of St. William, given to the *Dianthus barbatus*, may have faded away, yet "Sweet Williams" remains as a pleasant name, which is more than can be said of many late acquisitions in very hoarse sounding latin. But Virgin's Bower, Balm, "pun-provoking Thyme," Old Man, Thrift, Speedwell, Stichwort, Heartsease, and Loose-

"I know nothing of the *names* that botanists give to flowers," said an intelligent rustic once to me, "but when I am travelling from place to place with my cart, and see a pretty flower in the hedge, I am unable to resist stopping to pluck and admire it; and as I go along and gaze at it in my hand, it seems to give me pleasant thoughts for the whole day!"

Ah! nature awakens up, even in the rudest breasts, and kindles the divine spark within them; and yet I have heard persons who, no doubt, would fain be thought pre-eminent in wisdom, temperance, and piety, demurely cry, on looking upon the collected treasures of many a year—that, no doubt, such things might be interesting to those who had a taste for them, if they did not lead the mind from higher things; as if any objects placed before the contemplation of man by Infinite Wisdom, could be either ignoble, debasing, or unworthy of the minutest attention.* For as the strife, address the feelings, and tell a moral in small space. Then such appellations as Monkshood, Larkspur, Columbine, Crowfoot, Toothwort, and Cranesbill, well understood, show the observation that could institute comparisons of floral productions with other familiar things. Many common plants retain the names originally bestowed upon them by monks and friars of old, who at least harmlessly if not usefully strove to connect the flowering of plants with recurring festivals and saints' days. Thus Pasque-flower, St. John's Wort, Cross-flower, Herb Trinity, the Michaelmas Daisey, and various plants called after "our lady," were considered to indicate the arrival of festal solemnities of the church; while Herb Christopher, Herb Margaret, Herb Robert, Herb Bennet (corrupted from *Herba benedicta*), with various others, were dedicated to the saints on whose anniversaries they appeared. The traditional lore of *virtuous* herbs called up other names, as Clary or Cleareye, Self-heal, Ploughman's Spikenard, Woundwort, and many others, not yet entirely forgotten in rural appliances.

* It may not be amiss here to record the uniform piety of LINNÆUS, amidst all his multiform pursuits, as a proof that there is nothing in the study of science, rightly considered, inimical to religion—in natural history most assuredly the contrary. When LINNÆUS visited England, and for the first time in his life beheld the Gorse in flower, he fell on his knees and offered thanks to God for permitting him to enjoy this gratifying spectacle.

great BOYLE has well remarked, nothing can be too mean for the contemplation of man, which has not been beneath the dignity of a Deity to create.

But away with all disparaging critics of our glorious pursuit. Are we not now led by its love among delicious solitudes, where the fragrant heather gives instructive lessons as its pink bells glisten far over rock and fell—where the thin air fans our panting frame, inspiring us, at the same time, with purer thoughts, nobler aspirations, and sublimer reflections? It is so. And then the outer man, is not *that* advantaged?—purer air has displaced the city fog, a genial glow diffuses itself over the previously pallid face, and health crowns the moistened brow with a wreath of flowerets and green herbs, glistening with mountain dew. So I experienced, to its full extent, when a few autumns ago two friends and myself climbed up the Black Mountain from the vale of Ewias,* and progres-

Equally characteristic is his apostrophe to the Deity, in his inaugural oration before the University of Upsal, on his taking possession of the chair of Physic in that University.—“O omnipotent God, I humbly offer up my thanksgiving for the immense benefits that have been heaped upon me through thy gracious protection and providence. Thou from my youth upwards hast so led me by the hand, hast so directed my footsteps, that I have grown up in the simplicity and innocence of life, and in the most ardent pursuit after knowledge. I give thee thanks for that thou hast ever preserved me in all my journeys through my native and foreign countries, amidst so many dangers, that surrounded me on every side. That in the rest of my life, amidst the heaviest burthens of poverty, and other inconveniences, thou wast always present to support me with thy almighty assistance. Lastly, that amidst so many vicissitudes of fortune, to which I have been exposed, amongst all the goods, I say, and evils, the joyful and gloomy, the pleasing and disagreeable circumstances of life, thou endowdest me with an equal, constant, manly, and superior spirit, on every occasion.”—*Amén. Acad.*, vol. ii.

* There are several mountain ridges in and near to Breconshire bearing the appellation of the “Black Mountains,” but the range here alluded to stretch in a semicircular direction from N.W. to S.E. above the valley of Llantony, forming one side of the secluded vale of Ewias, the western side being formed by a corresponding and nearly parallel ridge. It is this

sed up a rough torrent's bed, now overgrown with tortuous drooping birches and mountain ash, now rude with displaced slabs, among which the chafed waters brawled and splashed, and the brown but white-breasted Dipper flapped his wings; or barring the way with steep walls of verdant moss, over which the stream murmured and bubbled amidst its rocks and crags, of which one in the centre bore a very large and beautiful Crowberry Bush (*Empetrum nigrum*), laden with its sable fruit, and many patches of flowering heath gleamed on the sides of the dingle. Far below, lessened yet beautified by mellowing distance, the broken towers and arches of Llantony Abbey stood grey and desolate in the sober hues of evening; and above and around us, the dark frowning eternal heath-clad hills formed in solemn magnificence a grand but broken amphitheatre, rounded by the action of waters long since passed away, but still bearing on their barren heads the pristine traces of stern desolation that ages have not taught to subside even before the smile of summer; while solemn, nay even terrific, must be the aspect of these hills amidst the wailing storms of winter.

Now, however, we could say with WORDSWORTH, as we threw ourselves panting on the bright thick and soft Heather to take a transient but delicious rest—

“ Ah! what a sweet recess, thought I, is here
Instantly throwing down my limbs at ease
Upon a bed of Heath;—full many a spot
Of hidden beauty have I chanced to espy
Among the mountains; never one like this;

range, which, standing on the borders of Herefordshire and Monmouthshire, more properly bears the name of the Halterel Hills. To the south it is connected with hills that approach very near to the Derry, one of the vast buttresses of the Sugar-Loaf Mountain.

So lonesome, and so perfectly secure.

* * * *

—In rugged arms how soft it seems to lie,
How tenderly protected ! Far and near
We have an image of the pristine earth,
The planet in its nakedness ; were this
Man's only dwelling, sole appointed seat,
First, last, and single in the breathing world,
It could not be more quiet."

Farther up the mountain we came upon masses of Bilberry bushes (*Vaccinium myrtillus*), whose purple acid fruit we found peculiarly grateful, and the very summit was adorned with the beautiful blushing fruit of the Cowberry (*Vaccinium Vitis-idaea*), whose ever-green box-like leaves always present a refreshing aspect. Hence a rugged and desolate brotherhood of flat-topped eminences rise to view, ridge beyond ridge, among which Mynydd-y-Cader, or the Chair Mountain, rises conspicuous with its two crowning cairns, and the lofty crest of the Talgarth Beacon, in sombre gloom, lifts its head above the other dark-browed heights. This sullen hill is almost always shrouded in clouds, its sides stony and barren, and its summit shaggy with heath, cowberries, and whortleberries. The lowering clouds rarely allow much prospect of the surrounding country, and what is seen partakes too much of surly austerity and gloomy rudeness to be contemplated with much pleasure or delight. There is indeed a solitary grandeur in the scene, but the perpetual shadow of blackened clouds makes it rather appalling, and gives a melancholy tinge to the feelings ; and the wanderer retires with impressions similar to those with which he would leave a robber's cave—he is thankful to escape unmolested ; but hardly certain of his safety, he pauses not to look round till

he perceives that he is again approaching the borders of civilized society.

Having finished our Ossianic reflections upon the dark hill-top, mirth conducted us down:—for after starting a covey of red grouse, on we dashed head over heels down the mountain side, often kissing the turf in our swift descent, and bounding over the dashing stream at the bottom, till not without a feeling of joy that our toils were completed, we found ourselves regaled with the fragrant China herb in the parlour of the southern entrance tower of the Abbey, served by fair hands, and cheered with bright eyes. Truly we enjoyed ourselves, till the grey mist of evening shrouding the scene, urged our departure—but ere we quite reached home, the grey spirit of the mountain starting after us, blew in sleet and rain one parting memento upon our recollections.

Such scenes as these will ever and anon refresh the view of the Botanical Looker-out, and invigorate his exertions; and not in vain do they occur, for while they rest upon the past, like the ruddy glow of sunset streaking the dull gloom of twilight, their remembrance acts as stimuli to the graver duties and researches of the study—so that the labours of the one continually prompts to the enjoyment of the other. A modern poet has thus very pleasingly depicted the sensations that the sight of a single flower may bring to the mind when contemplated beneath “the open heaven,” and forgetful of the unquiet world—

“ A flow’r is not a flow’r alone,
A thousand sanctities invest it;
And as they form a radiant zone,
Around its simple beauty thrown,
Their magic tints become its own,
As if their spirit had possess’d it.

The precious things of heav'n—the dew

That on the turf beneath it trembled ;

The distant landscape's tender blue,

The twilight of the woods that threw

Their solemn shadows where it grew,

Are at its potent call assembled.

And while a simple plant, for me

Brings all these varied charms together,

I hear the murmurs of the bee,

The splendour of the skies I see,

And breathe those airs that wander free

O'er banks of thyme and blooming heather." *

And now, with botanical exploration thus pictured, although my gun is not hoisted on my shoulder, may I not exclaim with ALLAN CUNNINGHAM—

“ Quoth I, fair lass, wilt thou gang wi' me,

Where black-cocks crow, and plovers cry ?”

for at this season, when the autumnal sun faintly struggles with mountain masses of enormous clouds, and the green earth is fresh from frequent showers dashing across the landscape, while the glorious arch of promise rests magnificent on wood or hill, the daintiest foot need not fear the fatigue of a hilly ascent ; and who that has once tripped upon the hoary reindeer moss, stood upon the time-worn slab crusted with the tartareous lichen, or sunk to dream upon the blooming heather stretching far upon the mountain side, but must long dwell upon the scene that then rose in wild seclusion with still recurring enthusiasm.

But amidst the empurpling hues of the Devil's-bit Scabious (*Scabiosa succisa*), and the bright yellow blossoms of the Cow-Wheat (*Melampyrum*), we now descend the deep sides of a glen walled in on either side with broken rocks, whose lofty heads shadow the dingle with sepulchral gloom. There rest we on the

* From an Ode by DOUGLAS ALLPORT.

narrow bridge arching the gulf, where the raving waters, red with the slaughtered soil, roar, splash, and struggle, while on the masses of stones that lie around in confused disorder, vast whirl-holes are engraved as vestiges of former watery warfare. The irrecoverable plunge hurries the stream into profound darkness, beyond the reach of vision, and its further course, like the unknown future, is shrouded in the solemn gloom of blasted yews, and old battered beeches, whose fantastic boles rooted into the rifted rock, swell out into the strangest and most grotesque forms.

In such hidden recesses, among the dead fungoid masses of beech-leaves that thickly strew the ground, the scrutinizing eye may sometimes detect the curious close-lurking *Monotropa Hypopitys*, whose brown withered aspect, and brown flowers, renders it almost inconspicuous in the twilight groves. The economy of this plant is very remarkable. We find it seated among beech roots in a hard intangled mass without any certain apparent parasitical attachment, though the beech roots appear many of them in a dead and exhausted state. The roots of the *Monotropa* itself are fleshy and branched, much like those of the *Listera nidus-avis*, but more widely extended, and covered with a white cobwebby mycelious production, perfectly transparent when seen through the microscope, and seeming to be a fungus in an abortive state, its ultimate filaments much resembling the anomalous *Ozonia auricomum*.* Whether this is parasitical upon

* Mr. T. G. RYLANDS has, in a paper in the *Phytologist*, characterized this, under the name of *Epiphagos Luxfordii*, as an actual plant, "probably a byssoid Alga," but as no fructification could be found this appears very doubtful; and after much microscopical observation of these very curious filaments, I can only come to the conclusion, unsatisfactory as it is, that they are a metamorphosis of the decayed beech rootlets, which are

the roots of the *Monotropa*, or in some mysterious way bound up in its economy I am unable positively to determine, but it connects the plant in an inextricable manner with the beech rootlets, which in some instances appear actually metamorphosed into a fungoid aspect. Mr. NEWMAN has suggested in the *Phytologist* (vol. i. p. 299), that "many species of ferns derive part of their food through the decaying portions of the bark and wood of trees to which their rhizomata are appressed: if this be parasitism then I think it will not be difficult to prove a like parasitism in the plant now under consideration." When it is found also that the *Monotropa* is always seen in connection with beech or pine trees, and often growing in circles around them within their dense shadows, there certainly seems at first view a connection in the economy of the plant with these trees; and as on further examination the masses of decayed matter in which they grow are always permeated by a labyrinth of rootlets, mostly in a decayed state, the probable truth appears to be such a modified parasitism as Mr. NEWMAN supposes. Dr. HOOKER in the *Flora Londonensis* says that the *Monotropa* is "one of the most anomalous and singular of British plants.—In general aspect it approaches nearer to *Orobanche* than to any thing else, but is totally different in the structure of its fructification. The young plants have a graceful form from the circumstance of their drooping heads, which become quite erect as the flowers advance. There is a very peculiar smell arising from every part

always found broken up in the vicinity of the *Monotropa*. I am inclined to think still that the roots of the *Monotropa* do absorb nutriment from the diseased rootlets of the beech, and that the byssoid appearance about the *Monotropa* is owing to this disarrangement.

of the herb ; which much resembles that of the primrose, but is not altogether so agreeable ; partaking also as it appears to me, of the odour of bees-wax. While drying, this scent is much more powerful, and it is retained even when the plant is perfectly dry.”—That noses may differ, however, in their sensations, like doctors and lawyers in opinions, appears oddly enough from the recorded statements of Mr. WILSON and Mr. NEWMAN, who both considered the odour given out by the plant to be exactly like that of a raw potatoe—Sir J. E. SMITH, like myself, thought it to resemble primroses—while a lady to whom I presented three mature plants in seed after they had been gathered nearly five months, and requested her to smell them, at once exclaimed “Beautiful! just like the Mezereon!”—When I have had about fifty fresh plants together, the fragrance proceeding from them was so powerful as to scent the room they were in for weeks, and was instantly perceptible on opening the door.

The wild Flora of September partakes of the colder hues which the waning year now insensibly, as the brighter flowers fade, mixes up with the changing aspect of things. The various Mints (*Mentha*), as Spearmint, Peppermint, Watermint, Redmint, &c., now every where present their whorled or capitate pale purple flowers on the sides of rivers, brooks, and springs, toning down the hues of the robe of nature in coincidence with the “cold autumnal care” that begins to make itself sensible to the mind, yet not without a feeling of pensive pleasure from the fragrant scents diffused around—

——“in the meadows where
Mints perfume the gentle aire.”*

* W. BROWNE.

In moist spots, too, the Soapwort (*Saponaria officinalis*), shows its roseate petals glistening with dew; and the Virgin's Bower (*Clematis vitalba*), trails its pale starry globes in assembled multitudes upon the hedges, or about limestone rocks. But the most certain indication of the approach of Autumn is shown by the pale purple petals and long white tubes of the Autumnal Crocus or Meadow-saffron (*Colchicum autumnale*), commonly called, though rather indelicately, "Naked Ladies," which invariably presents itself in moist meadows by the first of September—and where it abounds, as it does in profusion by the margin of the Severn, and often in wild hilly places, far from the haunt of busy life, the appearance it presents in wide patches of delicate purple, like fairy islets amidst the grassy aftermath, is truly beautiful. But, as is often the case in the vegetable world, a moral lies shrouded within this surface of beauty—for destruction lurks concealed in its lap. Its foliage is a most virulent poison to cattle, and great numbers have been, at various times, destroyed by eating its foliage. It is, however, very remarkable, that the leaves and fruit never appear till the following Spring after the flower; and thus in the Autumn, when the flowers *only* arise, no danger is to be apprehended from them, and the meadows where the plant abounds being seldom grazed in the Spring, mischief is for the most part avoided. Every agriculturist should be especially careful that the capsule of the saffron, with its three long ribbon-like leaves, is not present in the *vernal* pastures where he turns his stock to graze, for if it be, and the cattle have been long deprived of green food, they will ravenously eat it, and fall down dead in a very few hours after.

The *Colchicum* from flowering in a nude state, without any protecting foliage at so late a period of the year has often attracted the attention of observers who might have passed it by at another time. Archdeacon PALEY has adduced it as an apt illustration of his doctrine of compensation, and the Rev. W. A. LEIGHTON, in the *Flora of Shropshire*, states its vital economy to be an exceedingly curious evidence of design. PALEY says—"I have pitied this poor plant a thousand times. Its blossom rises out of the ground in the most forlorn condition possible; without a sheath, a fence, a calyx, or even a leaf to protect it; and that not in spring, but under all the disadvantages of the declining year. When we come, however, to look more closely into the structure of this plant, we find, that instead of its being neglected, nature has gone out of her course to provide for its security, and to make up to it for all its defects. The seed-vessel, which in other plants is situated within the cup of the flower, or just beneath it, in this plant lies ten or twelve inches under ground within the bulbous root. The tube of the flower, which is seldom more than a few tenths of an inch long, in this plant extends down to the root. The styles always reach the seed-vessel; but it is in this by an elongation unknown to any other plant. All these singularities contribute to one end. In the autumn nothing is done above ground but the business of impregnation." The young plant of the present year formed in the preceding one, during the early summer absorbs its chief nourishment from the old parent bulb, gradually enlarging, till in autumn it protrudes through the soil a long sheath from whence arises two or more purple flowers of six

petals at the end of a pale elongated tube. Fecundation soon completed, the corolla withers away, but the buried germen snugly rests beneath the soil through the storms of winter, thus admirably protected, until stimulated by the spring, the fully developed capsule appears above the soil surrounded by three shining green leaves. Meantime the bulb has assimilated the juices of its parent and has itself rooted in the earth. The leaves now wither, the capsule bursts and scatters its ripe seeds, new embryo buds appear, and these in their turn are destined to adorn the following September with their naked purple flowers, to fulfil the economy designed for them.

One of the prettiest sights that this month can offer to the eye of the botanical wanderer, in wilds unknown to public view, especially where the dripping fall of fountains beguile the ear, is in the elegant aspect of the fair *Parnassia palustris*, whose stainless argent flowers decorate particular plashy spots at this time. I shall not easily forget the sight of numbers of this most exquisitely beautiful of British flowers, growing amidst emerald moss, close to the very edge of the foaming waters of the "SEVEN SPRINGS," that pour their overflowing urns into the chrystal Windrush,* near Bourton-on-the-Water, Gloucestershire. They inspired the following lines—

* I was at this time on a pleasant three days' excursion among the ups and downs of the stony Cotteswolds in company with my friends General BRIGGS and Professor BUCKMAN, the latter of whom has recorded the incidents of our ramble and the plants found in the *Phytologist*, vol. i, p. 137-41. The Seven Springs is a most attractive and beautiful spot. Here is a wide marsh extending up to an abrupt rocky yet undulating hill, from whose base various clear streams appear gushing forth as if in wild tumultuous joy, and effusing themselves over an extent of boggy ground, bounded on the south by the quiet but chrystal Windrush, that like an attendant nymph waits with her urn to receive the outpourings that from

TO THE PARNASSIA PALUSTRIS.

(Grass of Parnassus.)

By the brink of the fountain, sweet flow'r
I saw thee for one happy hour ;
 In thy bridal array,
 How beauteous, I say,
 Was thy spotless display
Midst the streamlet's perpetual pour.

I had never beheld thee before
So fair on the rough barren moor ;—
 Like a thought from above,
 Like a vision of—Love,
 Among flowers—a dove,
Was thy aspect on Windrush's shore.

Still fair in the wane of the year
Thy petals and nectaries appear ;—
 Oh ! delectable sight
 To behold thee in white,
 While upon thee alight
The gay red or blue butterflies near.

As a beautiful vision, I think
Of thy blossoms on Windrush's brink ;
 In that wildly lone dell
 As if bound by a spell,
 I shall oft seem to dwell,
Giving Memory a fair silver link.

this favoured spot are, as from the altar of a Deity, lavishly poured out for her enrichment, and as a tribute for her to bear away and consign to the friendly embrace of the silver Isis. The springs at this spot (rather eight than seven) rush from the bowels of the oolitic hill with considerable force splashing and murmuring down the steep descent very prettily, but soon spread themselves in the marsh below, which is densely overgrown with various species of *Blysmus*, *Juncus*, *Carex*, and other aquatic plants, located on pretty islets, while the marsh filled to repletion at length pours forth its redundancy into the clear Windrush, which decorated with the bright flowers of the Forget-me-Not, and half filled with *Potamogetons*, flows silently beside it. On the adjacent hill side the very rare *Thlaspi perfoliatum* grows, and the Pasque-flower in its season flourishes abundantly.

The elegant *Parnassia* is much more plentiful in the north than in the midland or southern counties. The yellow balls of its nectaries seen with the pure white petals have a very peculiar aspect. This is one of those plants where the "natural system" only serves to perplex the student, systematic botanists referring the "*Grass of Parnassus*" to different orders, as its affinities correspond in some degree with Sundews, as well as Saxifrages and St John's-Worts. HOOKER and ARNOTT remark that "its place is not settled.—It resembles some violets in its leaves, and the *Saxifraga parnassiaefolia* in aspect, but it departs from the *Saxifragaceæ* by the position of its stigmas." Nature, in fact, will have her own way, and the systematists are obliged to make use of artificial expedients after all. Mount Parnassus gave its name to this plant, where it was noticed and described by DIOSCORIDES.

Thought again carries us on swift wing far away into a district in Monmouthshire, tempting alike to the botanist and the lover of picturesque scenery. The sparkling Usk rolls beneath the double bridge of Abergavenny, glances on its cumbrous ruined castle seated on a green elevated mound, and ploughing into the gravel on its pebbly shores, hastens along its beauteous vale to the ocean. Bounding the valley on the west rises the stupendous Bloreng Mountain, to the height of 1720 feet, the termination in this direction of that band of mountain limestone encompassing the South Wales Coal field;—clouds ever and anon wreath its summit, while the morning sun lights up the woods at its base, its green sides, and its protruding rocks, leaving the vast punch-bowl hollows of the

mountain shadowed in gloomy obscurity. Northward the pyramidal height of the Sugar-Loaf and its massive subject buttresses of old red sandstone block up the vale, leaving but a scanty space for the passage of the Usk on the one hand, and shelving off on the other towards the isolated fortress of the Skirrid Vawr, whose terraced ridges and detached promontories form a commanding object eastward; while from thence to the south an undulating woody ridge, capped by the feathery little Skirrid, extends almost to the banks of—

“The lucid Usk, the undulating line
That nature loves.”——

To increase the charm of the scene, the foaming little river Gavenny hurries from the eminences eastward, through richly verdant meadows, to increase the liquid resources of the rushing Usk; while the beauties of the country around Crickhowel, only six miles northward, Ragland's noted towers, eight miles to the south, with the matchless arches of Tintern within the range of a more distant excursion, conspire to tempt the wandering lover of nature to pause at Abergavenny. In this vicinity various interesting plants came under my notice, especially on the road to Skenfreth, where by a little stream in a deep hollow of a by-way beyond Lanvetherine, I saw the tall Elecampane (*Inula Helenium*) conspicuous with its sunlike flower, one of the finest and rarest of its tribe in Britain, and truly wild perhaps only in secluded moist places. The Dwarf Elder (*Sambucus ebulus*), or Danewort, supposed to indicate spots where blood has been spilt, appeared also in considerable plenty not far from the foot of the Derry. On the sides of

the Sugar-Loaf, *Melampyrum arvense*, var. *montana*, appeared plentifully, Soapwort (*Saponaria officinalis*) on the banks of the Usk in profusion, and various Mints, as *Mentha sylvestris*, Spear-mint (*M. viridis*), and Fragrant Mint (*M. acutifolia*), by rivulets descending from the deep combs of the sullen lofty Blorengge.

But evening has surprized us while musing on the summit of the Little Skirrid, near Abergavenny, amidst the wild groves of aged Hollies, Hawthorns, Maples, and Beeches, that surround its lonely verdant brow. The sun has sunk behind a purple cloud, but the winding Usk gleams with mirror-like brightness in the fair valley below, throughout all its undulations. The clouds of evening slowly fold upon the solemn brows of the Black Mountains, darken the head of the Great Skirrid, and cast into deep shadow the majestic wooded buttresses of the Sugar Loaf, whose narrow peak bright above all, rises the acknowledged sovereign of this mountain conclave; while the eye resting upon the darkened surly Blorengge, robed in the deepest purple, vainly attempts to penetrate the gloom that has now settled upon its rocky escarpment, and bathes its ferns and mosses in the dews of night. One lonely light among the woods at its base, alone serves to show by comparison the giant bulk whose indentations have been torn, bared, and riven by the autumn floods and storms.—Ye woods, wilds, and solitudes, ere again the tempest raves in terror through your leafy glades, driving the phrenzied streams from their murmuring pebbly beds, and tracing desolation on the flowery meads—ere again the muddy torrent breaks its bounds from the incessant rain, and the

blood-red ravine lifts its angry ensign as a trophy in mid-air, may we wander meditatively among the deep-embowered paths of your defiles, and retreat from your storm-robed fastnesses in safety.* Now, then, as the rising mists trail in serpent folds along the shadowy vale—Good Night!

* Just previous to my ramble in Monmouthshire, in the autumn of 1839, after violent rain for some days, the saturated soil on the eastern declivity of the Blorenges gave way, and a torrent of mud and water descended roaring in the shades of night to the Usk below, violently tearing up the earth, overthrowing trees, and scattering desolation over fertile fields. When I examined the spot, the turnpike road, for some distance, had been converted into the bed of a stream, rendered totally impassable, and obstructed by fallen trees, that seemed to have been hurried along with the land on which they grew. In a similar way the autumnal and winter torrents tear into the sides of the sandstone mountains of Breconshire. The range of "Black Mountains," passed on the road from Hay to Brecon, appear deeply gullied with furrows down their bare precipitous sides, all red and grimy from the decomposing sandstone of which they are formed, yielding to the excavating force of torrents swollen with continual rain, and giving to their profile the half-horrid half-ludicrous idea of a giant's face furrowed with weeping!

"For many a furrow on their time-worn cheeks
Has been the channel to a flood of tears."

WILD FLOWERS OF SEPTEMBER.

(CONTINUED.)

CHAP. XXI.

FLOWERS OF THE WANING YEAR—PLEASURES OF ASSOCIATION—PLANTS BY THE WIZARD DEE AND THE LAKE OF BALA—EXCURSION TO THE CLIFFS OF ARRAN BEN LYN—NOTICE OF THE AWLWORT AND HABITAT OF THE WATER LOBELIA—BOTANICAL LOOK-OUT ON THE BERWYN MOUNTAINS—ASPECT OF THE MOSSY TURF CLOTHED WITH SQUARROSE RUSHES AND LYCOPODIÆ—REFLECTIONS ENGENDERED—VARIOUS FERNS AND ROCK PLANTS—AUTUMNAL FLOWERS OF DITCHES AND COMMONS—DOMESTIC PLANTS, VERVAIN, WORMWOOD, &c.—EVERLASTING FLOWERS—SPLENDOR OF THE AUTUMNAL GORSE—OCEAN SUNSET AT BARMOUTH.

“It is a bright and balmy afternoon,
Approaching unto eventide; and all
Is still except that streamlet’s placid tune,
Or hum of bees, or lone wood-pigeon’s call,
Buried amid embow’ring forest tall,
Which feathers, half way up, each hill’s steep side:
Dost thou not feel such landscape’s soothing thrall;
And wish, if not within its bowers t’abide
At least to explore its haunts, and know what joys they hide?”

BERNARD BARTON.

The year fast wanes away, and milder paler tints diversify the floral prospect, save where the Hawthorn berries blush in the hedges, or the orchards show the ruddy tints of the ripened apples. The meadows shine with pallid gold where the autumnal Dandelion

(*Apargia autumnalis*) widely spreads, or are in many places overgrown with the yellow umbels of the Pepper Saxifrage (*Silauus pratensis*), or silvery with the common Burnet Saxifrage (*Pimpinella saxifraga*). Indicative of the *Autumnal Floralia*, the Hawkweed Picris (*P. hieracioides*), Ploughman's Spikenard (*Conyza squarrosa*), Golden-rod (*Solidago Virgaurea*), common Saw-wort (*Serratula tinctoria*), the Ragworts, and other syngenesious flowers appear to bloom in the tempered radiance, ere their feathered pappi are dispersed before the equinoctial gales. Flat meadows by rivers are in some places at this period made remarkable with the deep purple heads of flowers of the Great Burnet (*Sanguisorba officinalis*).

About pools, moist spots on heaths, and little rills of clear water, several plants now appear of humble stature, which in the more gorgeous days of Summer might almost pass unnoticed—but the botanist detects them as indicating the movements of Flora's dial, whose hands are now resting on almost the last fresh flowers of the year. Among these the Bur Marigolds, (*Bidens tripartita et cernua*), claim attention; the purple Marsh Wound-wort (*Stachys palustris*), the white flowered Gipsy-wort (*Lycopus Europæus*), and the blue Skull-caps (*Scutellaria*), so called from the singular aspect of the calyx after the corolla has fallen. The small Skull-cap is a common denizen of mountain bogs, where in company with the yellow kingspear, the ivy-leaved bell-flower, the rose-pimpernel, and the flossy cotton-grass, it is seen with constant delight by the wandering botanist.

The pleasures of local association combine in the mind perhaps more fully with flowers than with any

thing else, and hence I have sought to connect beautiful scenery with the plants that every day spring up before our eyes. There is an incitation in this that awakens the heart-strings of thought into full activity and gives wings to the imagination. An amiable author of *Reflections among the Sublimities of Nature*, asks—"Why does the common heart's-ease, the bear's-foot, and the polyanthus, interest him more than many other flowers, much more rare and beautiful?—Because they decorated the garden of a cottage belonging to an old woman whom he loved in his childhood. The violet, so beautiful and so odoriferous in itself, is still increased in interest by remembering how many a tranquil hour he has devoted to the gathering bunches of it under the hedgerows, when a boy.—When he sees a wood-strawberry, why are his reflections agreeable? Because it grows abundantly in a wood in the county of Merioneth, where he has often delighted to wander.—The wind-berry, the bog-berry, and the spider-wort? Because growing on mountains, they have associated themselves with liberty, solitude, and large flocks of sheep." *

So in like manner I have wandered into the solitudes of nature not merely for flowers, but for thoughts, that in after years should be associated with them by memory, and which their sight should again recall. The banks of the Wizard Dee are connected in my mind with the Worm-seed Treacle Mustard (*Erysimum cheiranthoides*), and the Marsh Hawk's-Beard (*Crepis paludosa*), which I found, the latter especially most abundantly adorning the margin of the stream; as well as with those woods of silver-

* BUCKE'S *Beauties, Harmonies, and Sublimities of Nature*, vol. iii. p. 13.

columned Birches that in beautiful array rise on the heights above the lancet arches of Valle Crucis abbey in the vale of Llangollen. The hill fortress of Castel Dinas Bran in the same vicinity has become connected with botanical research by the circumstance of a variety of the White-Beam tree (*Pyrus intermedia*), growing as a seedling on one of its time-battered walls, though in fact I myself wandering farther on found many more interesting specimens of the same tree interspersed with solemn Yews among the fearfully shattered crags of the limestone rocks called Craig Eglwsieg, that hem in the glen farther eastward. Here too, in great abundance located in the crannies of disjointed masses of rock, I observed, though half shrivelled up, the little Rock-Hutchinsia (*H. petræa*). While botanizing about the vale of Llangollen, I walked one autumnal day from Bala to Cerig-y-Druidion, spending the noontide amidst the rocks and foaming Water-breaks below Pont-y-Glyn, thence, roaming to Corwen by ways embowered with the red-fruited *Rhamnus frangula*, and in the dusk of evening faint and tired bathed my forehead in the Dee's moss-brown waters. There was a feeling of luxurious enjoyment in that at the time, looking back upon the toils and aspirations of a day of poetry, and oft has thought reiterated the enjoyment like a remembered strain of music. Nearer to Bala a new feature is given to the scene where the banks of the little river Trewern and other streams are prettily clothed with the Willow-leaved Spiræa (*S. salicifolia*), with here and there a Cambrian Poppy on some fissured rock, and the red-berried upright Bramble (*Rubus suberectus*), and the Mountain Globe-flower (*Trollius*

Europæus,) scattered amidst monstrous boulder-stones that in ruinous confusion almost choak up the beds of the streams. Scenes like these charming the wanderer at the time with unimagined poetry, become transferred to the memory not only as pictures, but as impressions of readings from nature awaking blissful ideas again and again.

At the time above alluded to I sojourned for a week at the little town of Bala, seated near the lake of the same name. The lake itself dark, frowning, and ever fretting its waters in ripples before the wind like an unquiet spirit, has but little to attract the imagination; but the mountains that from a distance just peer into its waters when a temporary calm soothes its passion, are tempting to explore—particularly the twin peaks of the Arrenigs, and the solemn Arran Ben Llyn. The latter I devoted a day to wandering upon, and hence one little plant—the Awlwort, will ever rest in my mind in companionship with the black rocks of Arran.

On this ramble, ascending from the eastern shore of the Bala pool, I entered a rocky valley watered by a brawling torrent, beyond which appeared minor ridges connected with the mighty backbone of Arran itself. This torrent, called the Twrch, or Burrower, falls into the Dee ere it enters the southern end of Bala Lake. I continued along the road in view of it still ascending till I came to a farm-house and hamlet, called Rhydybont, where there is a “watersmeet,” from a boisterous stream joining the Twrch, by a lateral valley that winds up into the very heart of the mountain. Just beyond this place the rugged cliffs of Arran appear with fine effect, deeply furrowed by

the erosion of centuries on their time-worn cheeks ; and the highest peak with its cairn of stones here comes into view, like a lofty pyramid, distinct in its altitude from the nearer broken and disjointed masses of the shattered black cliffs. Before ascending these heights, I diverged to see the cascade of the Twrch, higher up the valley where it narrows almost to a glen, with a bare green mountain on one side, and a steep eminence on the other pleasingly covered with a natural forest of birches. Having arrived at the entrance of the pass called *Bwlch-y-groes*, the sound of tumbling water in the deep glen on my right directed me to the water-fall, and I hastened down to it. From the paucity of water at that time it had more the appearance of a number of water-leaps among a great disruption of rocky masses, rather than a cascade in the strict sense of the term. It would appear as if a water-spout had burst in among the mountains years ago, sweeping a ruin of massive boulder-stones before it, which had been left heaped confusedly upon each other in this cavity, since which the water has rolled musically among them, sportively leaping from one to another, burrowing beneath some, sliding over the slicky surface of others, and more or less marking all with those deep indented curious circular impressions, which suggest the idea of their being the tracks of some monstrous extinct animal of bulk sufficient to seal its progress over the rocks ! The scene is very pretty and romantic at the commencement of the fall, where two huge cromlech-like stones seem to bar the way, and the stream dashes down a deep gap between them, commencing thence a series of leaps, plunges, and murmurings among the

broken stones, grey crags, and deep hollows, that continues a considerable distance. In the damp recesses of the rocks about the fall, the Starry Saxifrage (*Saxifraga stellaris*,) was prettily in flower, and Waters Avens (*Geum rivale*) near a crag above it. In the broken ground along the descent of the stream many fine old battered and distorted Birch and Mountain-Ash trees were growing, the latter always in combination with falling water in Wales, and their red berries giving character to such wild secluded scenery. The Marsh Hawk's-beard (*Crepis paludosa*,) still in flower also adorned the rocks close to the waters, as well as the leafy Northern Hawkweed (*Hieracium boreale*), and masses of the Meadow-sweet (*Spiræa ulmaria*) scented the air. Many Mosses and Jungermanniæ also appeared about the moist crevices of the broken rocks. After wandering for some time among the fissures and ledges of this romantic scene, I returned down the valley to Rhydybont, where I passed the Twrch by a wooden bridge at the "meeting of the waters," and then another stream by a number of leaping-stones through which the waters struggled fiercely as they swept down from the dark recesses of Arran.

I now took a path by the side of this last-mentioned stream, which continued roughly brawling among rounded quartzose stones, brought down evidently from the entrails of the mountain, and as I left its side the deep coomb of its birth opened before me on the left with a steep green glacis. After passing a rough cottage, whose roof was covered with polypody and stonecrop (*Sedum anglicum*), I struck off up the mountain side till I came to an extensive bog, the

vast shadowy precipices of Arran frowning directly in front. Crossing the bog towards the cliffs, I soon perceived a deep hollow within which a lake, somewhat in the form of a figure of 8, lay partially shrouded in deep shadow, the solemn cliffs above being reflected in gloom, while a continual ripple agitated the waters. Broken rocks of all sizes formed a fitting frame for this mountain llyn, and among these its surplus waters rushed through at the extremity at which I approached it by a gulley that deepened in its progress towards the valley. A blaze of sunshine flickered in front of the extending shadow of the black precipices, lighting up the margin of the lake, and showing a great quantity of green Plantain Shoreweed (*Littorella lacustris*) piled along the shore. The darkened surface of the llyn looked sad as hopeless despair, but on the very verge of the deep shadow a brilliant ray of light awakened a little silver cruciferous flower that on the margin of the sable water glittered like a cottage window in the glories of sunset, or an icicle on a rock amidst wintry gloom. So minute as to be else unseen, I marked it in a moment, and found it to be the fairy Awlwort (*Subularia aquatica*), a highly curious little plant, found only on the margins or even at the bottom of alpine lakes, where it flowers though its corolla is quite unprotected and not different from those of other tetradynamous flowers. The leaves are few, all radical and awl-shaped, resembling those of *Isoetes*, another inhabitant of mountain tarns.

Leaving the lake I skirted the base of the precipices for some distance, gradually mounting among the rocks as the opportunity presented itself among Crakeberries (*Empetrum nigrum*), and coarse grasses; and

in one place obtaining a sight of the Rough Alpine Shield-fern (*Aspidium Lonchitis*), on an inaccessible crag. Midway up the precipices, the little S-formed lake which I now overlooked appeared to advantage, and was contrasted with the long lake of Bala, seen stretching above it in the perspective now momentarily widening before me. I had some difficulty in reaching the summit of the cliffs, and even then had to cross an extensive marshy plateau, among which are several boggy pools with quantities of Cotton-grass, descend a deep hollow, and surmount a rough staircase of quartzose and trappoid rocks piled horridly upon each other, ere I could gain the loftiest peak of Arran Ben Llyn. The view was repaying, for the landscape was nearly clear, no clouds obscured the mountains, and the sun within an hour of his setting finely illumined the scene, without the deterioration of any misty glare. Still the air was not entirely transparent, consequently it communicated the deepest and most lovely blues to the distant ridges, so that the entire northern ranges of the Welch Alps appeared as vivid and distinct as if painted in body colours. Eastward, a singular scene appeared—the vast tabular masses of the Berwyns were seen in gloomy uniformity, like vast beams, the scaffolding of nature, one behind another, with monstrous hollows between, green or purplish, save where a great bare red place seemed to point out the brand of some desolation of fire or water. To detail the whole objects visible in such a grand panorama as this would be a vain attempt—but the northern prospect was the crowning gem of the view. The lake of Bala, in its long extent, flanked by the pointed Arrenigs, were looked upon in front ;

thence extended a magnificent accumulation of ridges heaped upon and behind each other in the wildest confusion, intermingled with dark chasms and deep glens, the grand appearance of which I can only compare to that of a vast field of ice broken up by a sudden storm. A coloured vapour from the descending sun harmonized the surfaces of these deep azure "delectable mountains," and deepened their inequalities with a chiaro-scuro effect that I have seldom witnessed, and I gazed upon the sublime prospect till the sun went down, and the shrill shriek of the evening breeze, borne up the ravines of the mountain with a warning voice, urged me to retire ere night should give a dangerous obscurity to the morasses I had to traverse on my return.

I may here, while among the mountains, mention a plant peculiar to alpine lakes, that continues to flower in the autumnal floral reign—the Water Lobelia (*L. Dortmanna*). This rooted under the water, with its starry tufted recurved foliage, lifts up its long slender spikes with pale blue drooping flowers at the summit, in many of the Welch llyns very plentifully. I have never seen it in greater abundance and perfection than in the Teivy lakes, above Strata Florida Abbey, Cardiganshire. There I gathered it on an excursion when dense mist rested on the mountain tops, and the silent llyns cradled in vapour, seemed in their gloomy hollows like steaming volcanic craters, rather than basins of chrystal beauty devoted to the *Oreades*. Hastily I descended the splashy sides of the hills, but the misty wreathes closed upon me from behind, and involved in fog and darkness among quaking turbaries, gushing streamlets, broken deceptive ravines, and

slippery stones, I had some difficulty in escaping from the humid bed where the mountain sylphs seemed anxious to detain me, and it was late in the night ere I reached Pont Rhyndig.

But the earnest botanical explorer imbibes the mountain dew uncomplainingly, the thought of floral beauties among deep solitudes and broken fells dwells upon his imagination, wander he must, and like a vapour that the sun calls upward, he darts off from murky streets and dingy habitations to the solicitous haunts and purifying heights where his favourites grow.

————— “Climb with me the steep—
Nature’s observatory—whence the dell
In flowery slopes, its river’s chrystal swell,
May seem a span; let me thy vigils keep
’Mongst boughs pavilion’d, where the deer’s swift leap
Startles the wild bee from the foxglove bell.” *

Let us then illustrate the joys of a botanical look-out in a cursory plunge among the dark moors and sullen tumps of the Berwyn mountains. Here all is silent, waste, and uninhabited, nothing visible but the black wide spread Heath,† and the blacker stacks of “Mown” or turf, on the mountain side. Cairns crown each round eminence, and one looms behind the other so twin-like that in a fog it would be impossible to distinguish one from the other, and what a desolate position this must be with a keen pityless sleet-

* KEATS.

† LINNÆUS remarks in his *Flora Lapponica*, that in some of the districts through which he passed in Lapland scarce any plant was to be seen but the heath, which everywhere covered the ground, and could no ways be extirpated. The country people, he observes, had an idea that there were two plants which would finally overspread and destroy the whole earth, viz. Heath and Tobacco. But it is probable there will be always smokers enough to consume the last plant.

bearing wind on a November eve. Even now a monotonous extent of heath and moss extends wearisomely for miles and miles unvaried but by the Bilberry or Crowberry, or here and there beautified by the orange leaves and red stalks of a patch of *Narthecium*—made sterner still by abundant masses of the stiff dull-looking squarrose Rush (*Juncus squarrosus*), and ruinous mounds of black peat. Yet even here a searching hand might pick out some curious object worthy of attention, such as the *Lycopodium clavatum* or *alpinum*. The former is something like a branch of Norway fir creeping along the ground, and extending its branches in a proliferous manner for many feet, still by its runners holding so fast to the mosses and heaths among which it stealthily advances, that it requires a little patience to obtain a perfect unbroken specimen, which, however, with its bright green imbricated incurved leaves and ascending pale yellow spikes of fructification in pairs, makes a very ornamental appearance, especially if transferred to the head or neck of the wanderer. Even the rustics have not passed it by unnoticed, for as WORDSWORTH says of his Cumberland shepherd boys—

“ With that plant which in our dale
They call *Stag-horn*, or *Fox's-tail*,
Their rusty hats they trim :
And thus, as happy as the day
Those shepherds wear the time away.”

The Fir Club Moss (*Lycopodium Selago*), a stiff upright species, with the capsules in the axills of the common leaves, is an inhabitant of heathy and boggy places. The *Lycopodiæ* belong to the *Cryptogamia*, or Acotyledonous division of the Natural System.

The sullen tract we are now traversing is all at once enlivened by a break in its sadness—a gulley appears, deep in the hollow of which a ferruginous spring pours a gurgling stream that leaps, and rolls, and dashes, brisk with young life, truantizing like a thoughtless child. It probably communicates with the Dee, for there is a most beautiful opening to its green valley, and this seen from the height on which I stood, the fields smiling in the richest emerald green, with numerous trees a shade darker, and all lit up in the smiling sunbeams, certainly looked like a little Eden when contrasted with the bleak bare sides, cold unbroken indigo, and dark umber hues of the frowning wide-stretching Berwyns.

I now prepared to descend, for broken heights and craggy rocks intimated a break in the mountain range. A verdant valley soon appeared in front, extending some distance, and watered by a meandering stream that bounded from a deep gorge on the right, and was joined by other torrents from the brows of the steep escarpments that boldly rose in cliffs around the deep glen, that, expanding as it receded from the mountains, showed numerous enclosed green fields, trees, bushes, and farm-houses within its limits, the angle of the mountain just enclosing the village of Llangynnog within its embrace, and terminating the view. The scene was exceedingly pretty, for the valley seemed like a laughing plump child in the care of a gaunt stern nurse;—the harried cliffs rising almost abruptly to the sky, looked as if they could easily fling down an avalanche of ruin upon the valley, and their broken torrent beds seemed able at a moment's notice to bear a flood of desecration among those

green fields. But now all was fine and fair, the slaty purple-tinted rocks slept upon their glassy declivities, and forebore to roll down in terrific uproar; the deep beds of the torrents wept only a silver skein among their huge stones, or were several of them quite dry, showing only by bright green patches of *Mosses* and *Jungermannia* where water had been, or yet rested hidden within their spongy recesses. The view might be compared to a still scene of early life, when the unclouded prospect has not unmasked its appliances of woe, and when the sources of delight seem as if they would ever remain so, and friends smile and fondly promise to continue attached to us for ever; till experience, too late, makes us familiar with the stern fact, which no one had cared before to tell us, that the bitter waters of sorrow may overwhelm us from the very same sources whence we had expected a continued flow of delight only. Such, alas, is life!—and so the flood of alienation rushes upon us, overwhelming our fondest wishes, and too often leaving us desolate in the midst of overthrown expectations and the wreck of scattered hopes. Aye, how often is it that the reckless blow that disquiets us comes from a once supposed *friendly* hand, and then it is felt to be “sharper than a serpent’s tooth.”—And can this lovely picture of bright mountain scenery before me conjure up such unkindly reflections?—Vanish ye baffling unsubstantial ghosts of inverted thought!—let the sunbeam light up the dark vagrant cloud, and the fragrant breath of the heathy air waft it away.

I am progressing down a mountain stair-case, the deep glen with its opposing escarpment of rocks on my right, my path shelving the precipitous schistose

cliffs on my left, among vast broken fragments in whose clefts and recesses beauteous and delicate green fronds of various Ferns appear, as the Parsley Fern (*Allosorus crispus*), the fairy three-branched Polypody (*P. Dryopteris*), the Bladder-fern (*Cistopteris dentata*), and the Black-stalked Spleenwort (*Asplenium Adiantum-nigrum*). Bell-flowers too shiver here even in the sunny gleam, and various Hawkweeds (*Hieracium*) exhibit their golden rays on the rocks high above. Descending lower down rough low-roofed cottages at length appear on each vantage ledge the narrow road presents, and their slaty roofs are bandaged with a luxuriant crop of Houseleeks (*Sempervivum tectorum*), with their starry tufts of succulent leaves, among which tall stalks appear crowned with corymbs of dull red flowers, and the edges of the slates are covered with the silver-flowered Stonecrops growing here with profuse luxuriance. Rapidly the road became steeper, and brought me almost to the lowest depths of the valley where stood the village of Llangynnog itself, by its rushing stream filled with boulders. On the fallen schistose layers of rock above this village towards Pistil Rhayader, I was surprised at the quantity of Parsley-Fern that presented itself. It grew almost shrubby, in round gorse-like masses of considerable size, and had, from the aspect of its crisp green fronds, a very lively appearance.

Having descended from nature's craggy throne into the valley of humiliation, we can now regard those humbler wild flowers, or "weeds," as the uninitiated would name them, which are familiar to the eye at this period, and serve as well to denote the autumnal season as the congregated swallows and martins.

About rivulets and wet ditches the Hemp Agrimony (*Eupatorium cannabinum*) displays in large patches its thickly crowded corymbs of reddish-purple flowers, accompanied by the Water-Figwort (*Scrophularia aquatica*), within the throats of whose red flowers wasps may be often seen searching for sweets; and marshes are now adorned with the elegant panicles of the common Reed (*Arundo Phragmites*), at this time in feathery perfection.

Some goose-grazed common, dotted with pools, may now be inspected with advantage, for here a host of plants cut up elsewhere wherever they appear, take sanctuary—like worried tribes among mankind, routed, harassed, pursued, and persecuted, till they find some remote district where they can rest their wearied feet. Here may be seen in abundance those troublesome tribes the *Atriplicææ* and *Chenopodiaceæ*, in vernacular dialect, Goosefoots, Fat Hens, &c.; Spotted and Pale-flowered Persicarias, the Biting Arsmart (*Polygonum Hydropiper*), not to be mistaken if its flowers be once chewed; various Ragworts like beggars in gaudy garments, the scentless Feverfew (*Matricaria inodora*), the stinking Chamomile (*Anthemis Cotula*), and the too Common Yarrow (*Achillæa Millefolium*), with its flat-topped heads of small but densely clustered white flowers. In wetter parts of such waste places where water settles all the winter through, the Small Fleabane (*Inula vulgaris*) appears with numerous branches bearing golden discs or knobs, with very short inconspicuous rays. The drier turfy places have a pleasanter and more wholesome aspect gemmed with the pretty stars (yellow disc and white ray,) of the Common Chamomile (*Anthemis nobilis*) whose aroma-

tic odour is so agreeable that it is a favourite in cottage gardens, and still prized medicinally. Other "wilderer spots" bear the low crouching Swine's Cress (*Coronopus Ruellii*), the Creeping Tormentil (*Tormentilla reptans*), with little yellow four-petalled flowers, the common Shepherd's Purse, Small Cranesbill (*Geranium pusillum*), and the Dwarf Mallow (*Malva rotundifolia*); half in seed and half in flower. Sulking about the ragged hedgerows on the verge of the commons Black Horehound (*Ballota nigra*) still flourishes, and tall masses of the Common Dyer's Rocket (*Reseda Luteola*) appear with their long wand-like flower-stalks crowded with capsules; here also several Hemp-nettles (*Galeopsis*) show their purple flowers, and Mugwort (*Artemisia vulgaris*), once prized for its boasted powers, lifts high its crowded spikes and cottony leaves. The Red Bartsia (*B. odontites*), gives a dullish purple look to the same side of the waste. Choaked in flags and sedges a slow half hidden brook simmers along one side of the flat weedy expanse, hosts of Bur-reeds (*Sparganium ramosum*) showing their green prickly heads very conspicuously above the water—CLARE says

"Prickly burs that crowd the leaves of sedge,
Have claim'd my pleasing search for hours and hours."

There too is the Amphibious Nasturtium (*N. amphibium*), and mixed with the withered heads of Carices and green-stalked Bulrushes, the Purple Loose-Strife (*Lythrum salicaria*), exhibits its foliage changed to the brightest crimson. On the banks of the stream towering over all, squadrons of prickly-headed Teazels (*Dipsacus sylvestris*), make a formidable covert. The lazy brook covered with Pondweeds, amidst which the

Arrowhead (*Sagittaria sagittifolia*) lifts its singular-shaped leaves and purple flowers, creeps on beneath the flickering shade of pallid lank-leaved osiers scattering a plummy waste of feathery seeds, and reluctantly advances towards the polluting suburbs of the town that soon blackens its current and chars the stunted alders clinging to its margin.

Solitary stagnant ponds and wide drains and ditches that occur in flat marshy places, appear about this time quite green with a close investing coat of Duckweed that covers them like a carpet. In the genus *Lemna* the term frond is given to what appears to be stem and leaf united in a fleshy peltate cellular disc. The increase of the plants appear to be principally by *gemmæ* growing out of the sides of the parent frond, and thus forming dense proliferous masses that speedily cover in the decline of summer the entire surface of a pool or ditch. The young plants throw out roots, and then separate from their parent to increase and multiply in a similar manner. This "green surface of the stagnant pool" harbours great quantities of aquatic insects, as well as *Molusca*, *Vermes*, &c. and ducks consequently delight to explore its recesses, soon clearing a pond of its verdant investment. Where it is very thick in unfrequented marshy spots, its surface may be often seen marked with indented criss-cross lines from the Water Shrew or Vole, who loves to paddle through it in the twilight to seize the *Lymneæ* or Water-slugs there; or sometimes the rough head of the Water Rat may be seen peering from among it.

While on the margin of the commony waste, where some old timbered farm-house, with its thatched barns,

tortuous Elder-tree, scraggy Elms, and green horse-pond by the road side attracts passing notice, we can scarcely help adverting to those wayfaring or "domestic plants," as they have been termed, that scarcely wild at all, doggedly stick to the skirts of mankind, as if they had still some claim upon his notice, though now almost entirely discarded. Such is the once consecrated Vervain, of druidical fame,* always to be found in the vicinity of civilization, lifting its wands of pale purple flowers; such the Black Nightshade (*Solanum nigrum*), Catmint (*Nepeta cataria*), with its hoary leaves, the monstrous Thorn-Apple (*Datura Stramonium*) conspicuous with its white funnel-shaped plaited corolla and spinous fruit, the viscid Henbane (*Hyoscyamus niger*), its curving branches now thickly

* MILLER has observed that the Vervain (*Verbena officinalis*), is scarcely found a quarter of a mile from any house, and from this circumstance was called the "Simpler's" or Herbalist's "joy." It was of old a sacred herb, honoured by the Magi among the Persians and the Druids among the Celts, and one of those plants of enchantment that counteracted the spells of witches when with "wicked herbs and ointments," as SPENSER says, they bereaved the senses of those they were inimical to. Hence TURNER says in his blacke letter Herbal—"They call it Hierobotane, that is an holy herbe, because it is very good for to be hanged upon men, agaynst inchantementes, and to purify or clenge wyth all." So PENNANT says that it bears with the Welsh the significant name of *Cas gan Gythrael*, or the Demon's aversion. In druidical times the plant was cut in darkness, and so gathered, many magical properties were attributed to it, but especially was it considered to keep off evil spirits; and used among the Romans for its supposed purifying properties, holy water being sprinkled with its branches. The reputation of Vervain must have long continued, for in an old English MS. published in the *Archæologia*, it is stated that whoso "beryth it up" in his hands, shall "have love of grete maystrys," and none shall refuse his asking, but grant him with good will "what he wele." This power "the sacred herb" seems now to have lost, but it is still collected to make purifying infusions and decoctions, and I have seen a pamphlet detailing "cases" of astonishing cures made by its use. Those that believe it is not entirely used up, will still give a good price for bundles of the plant.

———"O who can tell

The hidden powre of herbes, and might of Magick Spell."

Spenser.

set with hard bell-like capsules, and the juicy but insipid Good King Henry (*Chenopodium Bonus Henricus*), never perhaps much better than a chip in porridge, and as neglected now as poor King HENRY himself could be. Sometimes we see a farm house made out of the spoils of a deserted abbey or priory, while many shattered walls and arches yet remain about it—

“Where the mouldering walls are seen
Hung with pellitory green.”

Nor are other plants of ruin slow to invade the interstices of the broken-up fabric, where parsley and willow-herb, ivy and honeysuckle, wild and garden-flower mix in strange confusion, withered grass and succulent stonecrop range together on the same ledge, incongruous as would be the mixture of past and present manners, and suggestive to the moralist of a changed and ever changing scene.—

“Not always did that structure frown
With ivy-crested brow;
Nor were its walls with moss embrown'd,
Nor hung the lanky weeds around
That fringe its ruins now.”

In the vicinity of such once inhabited spots the sickly looking Wormwood is sure to be found, often in great profusion, especially in Wales. I never saw such a crop as actually lines the streets of the abject city of St. David's, in Pembrokeshire, and all around the high steps of its once hallowed cross, while Ver-vain in the utmost profusion, White Horehound, and golden-headed Tansy, are scattered about the ruins of its college and palace. Mr. LEIGHTON says, in his *Flora of Shropshire*, that “there is a tradition that this plant was extensively employed medicinally during

the direful ravages of the plague; certain it is, that it now occurs in great abundance about the villages and hamlets in the neighbourhood of Oswestry and on the Welsh border, where that frightful disease is known to have been rife.”* It was, however, doubtless used officinally from a very early period, and I have seen Welch women gathering Wormwood to make tea in the present day. SHAKSPEARE indicates a singular use for this bitter herb, well known to aged crones, and derived from “the old times before them.” The garrulous nurse, prating about the age of her “lady-bird,” Juliet, and raking up her memory for a time-mark there, says—

“ ’Tis since the earthquake now eleven years;
And she was wean’d—I never shall forget it—
Of all the days of the year, upon that day,
For I had then laid WORMWOOD to my dug,
Sitting in the sun under the dove-house wall.”

The bitterness of Wormwood has indeed passed into a proverb, and it seems strange that such bitter and dissightly herbs alone should willingly attend upon the footsteps of humanity.

A curious tribe of cottony herbs with coloured permanent calyces of yellow, red, white, or brown scales, and commonly known as Cudweeds, or “Everlasting Flowers,”† are in full perfection in August and Sep-

* *Flora of Shropshire*, by the Rev. W. A. LEIGHTON (well worthy of old Salopia), p. 407.

† These are the “immortelles” of the French; and a recent author remarking upon the “tubs of immortelles” offered for sale in the market of Marseilles, observes, that “For this enduring flower there is always a sure sale—crucifixes, altars, saints, the busts of great men, and of handsome actresses, have all their chaplets of immortelles. It is flung upon the stage; it is suspended over the tombstone; NAPOLEON, LOUIS, CHARLES, have had theirs; LOUIS PHILIPPE has his, and HENRY Cinq, would like his predecessors, exhaust the stalls, if opportunity offered. In all this scene-shifting nothing seems permanent but the *least permanent* of nature’s gifts—a flower!”—*Sketches in the Pyrennees*.

tember. The African Everlastings are very beautiful, especially one from the Cape, whose highly coloured clusters resemble ripe strawberries. The Common Cudweed of our fallow fields, *Filago Germanica*, was called an impious herb by the old simplers, because its primary flowers were overtopped in a proliferous way by the later or younger ones, like children affecting to be above or wiser than their parents! Another kind, the Marsh Cudweed (*Gnaphalium uliginosum*), frequently extends its woolly entangled masses in wet hilly spots or dried up ditches, and the Upright or Highland Cudweed (*Gnaphalium sylvaticum*), scatters its flossy down on mountain sides or in the deep shades of woods. The Pearly Everlasting (*Antennaria margaritacea*), has a most elegant aspect, with its globose calyces of pearly silvery white, that remain unchanged after gathering, and decorate mantel pieces with a perennial ornament. This species, though of supposed North American origin, now flourishes apparently wild on the banks of the river Rumny, in South Wales. I observed it a few years ago about four miles from Caerphilly, Glamorganshire, and it presented itself in seven or eight spots between that place and Ystrad-y-Mynach, on the margin of a wood between the road and the brawling Rumny, but on crossing the bridge to the Monmouthshire side of the river, the Pearly Everlasting presented itself in the greatest profusion in a waste spot among furze bushes, with which its silvery foliage and pearly calyces beautifully contrasted, and formed a delightful spectacle. It was also abundant along the side of the bushy hill beyond the bridge, on the road to Pontypool.

In South Wales the Pearly Everlasting is much

used as a fit emblem to adorn the graves of departed friends, as a simple but intelligible "in memoriam." This custom of planting the graves with flowers is an interesting and affecting custom, still kept up in the principality, but perhaps it is not generally known that plants of pungent scent are chiefly chosen for this purpose. Thus Rosemary, Old Man (*Artemisia Abrotanum*), Balm, and Tansy, are of most frequent occurrence, the latter of which, and some others, are thus alluded to by MASON, in his fine elegy commemorative of the practice:—

—————" Full many a flower,
Tansy and Pink, with languid beauty smile;
The Primrose opening with the twilight hour,
And velvet tufts of fragrant *Chamomile*.

For more intent the smell than sight to please,
Surviving love selects its scented race;
Plants that with early perfume feed the breeze,
May best each dank and noxious vapour chase."

The idea seems to have been to render the last sad home of the departed in the cold ground as pleasing as possible, by throwing around it a grateful perfume; and perhaps this may have originally arisen from sanitary motives, the putrid effluvia from the mortal remains being thus neutralized by the agency of the flowers, no danger need be feared from a silent communion with the loved object now for ever at rest. A similar idea seems to have been entertained by SHAKESPEARE, where it is said in reference to the death of FIDELE—

" With fairest flowers, while summer lasts,
I'll sweeten thy sad grave."

When the Pink is extensively planted upon graves, as

I have several times noticed in Glamorganshire, the most beautiful and elegant effect is produced. A distinction is however to be made between planting the graves with herbs, and strewing them with flowers,—the latter only taking place immediately after interment, and being continued at occasional intervals, till the growing plants put forth their blossoms. One of the most charming spectacles of this kind that I ever saw, was in the church-yard of Trevethin, near Pontypool, Monmouthshire, in the month of March some years ago, where several children were diligently employed in decorating every grave with the flowers of the wild daffodil. These, covered with dew-drops, and glistening in the morning rays of a vernal sun, produced a very brilliant effect. This highly poetical custom has probably been handed down from high antiquity. When MARTYN, in his Notes to the 5th eclogue of VIRGIL, under the words “*Spargite humum foliis*,” says, that “it was a custom among the ancients to scatter leaves and flowers upon the ground,” he doubtless alludes to the subject in view, as the ground was to be strewed with leaves in honour of DAPHNIS, and a monument raised to his memory. This original heathen custom was found not inappropriate to Christianity, and is alluded to by several of the fathers, though St. AMBROSE seems to imply a disregard to, or disinclination for, the practice. “*I will not*,” he says in his funeral oration on VALENTINIAN, “*sprinkle his grave with flowers*, but pour on his spirit the odour of Christ; *let others scatter baskets of flowers*. Christ is our Lily; with this I will consecrate his relics.”

For a brief space we must now climb the mountain side again. On heathy spots and the declivities of

hills, a gorgeous aspect is in this month given to the landscape by the flowering of the autumnal Gorse or Furze. The spring Gorse (*Ulex Europæus*) commences flowering even during the chilling blasts of December and January, its golden flowers often glazed with ice, succeeded in declining summer by the *Ulex nanus* or lesser Gorse, which continues to gild the heaths late into the autumnal floral reign. Thus some kind of Gorse always exhibiting its yellow bloom, has given rise to one of those common proverbs—kissing is out of season when Gorse is out of flower—that is never!—which shows how ready even the uncultivated mind is to take notice of the facts in nature that are open to general observation. Every body sees—

“The prickly Furze with bloom of brightest gold;”

but every body may not be aware that there are two kinds flowering at different times of the year. Even the autumnal Furze is botanically divisible into two forms, if not species, both differing in the smaller size of their flowers from *Ulex Europæus*, as well as in the calycine bracts being very minute, the calyx merely pubescent with distinct teeth, and the wings manifestly shorter than the keel. In the autumnal gorse, too, the legumes do not ripen till the second year, and then remaining unopened on the plant; while in the spring gorse the legumes burst open in the year of their production, shedding their seeds with a cracking noise in the sun!

The autumnal Gorse has two aspects, lately proposed as distinct species;—one, *Ulex nanus*, is of dwarf growth, much less spiny than *Europæus*, rather elegant, and of a trailing habit, with the wings of the corolla flat, straight, and shorter than the keel. The

other, named *U. Gallii*, by PLANCHON, from M. LE GALL, a continental botanist, almost equals *Europæus* in size, has rigid curved spines, but agrees with *nanus* in its flowers, only that the wings are falcate and incurved, a little longer than the keel, with hispid legumes.—This last is certainly the most abundant Gorse in the west of England and Wales, splendidly adorning the hills with its orange-golden flowers in August and September. I noticed it in the utmost abundance in 1849 on the mountains between Barmouth and Harlech. When the heath is fading and becoming embrowned, and the ferns tinged with a russet hue, the gorse flames upon the declivities, among broken purple rocks and grey lichened stones, like a blaze of light through coloured windows, giving contrasts and harmonies only to be appreciated by those who wander among such exciting scenes.

We have oft pilgrimaged among them, and on the stony ribs of the broken trappoid rocks that abruptly rise upon the shore above the little terraced town of Barmouth, at once look down upon the extensive sandy beach there and the wide spread sea that darkens in the distance, in the calm of evening. Its opaque surface now slept without a ripple, and the estuary of the river was silently and gradually becoming a waste of sand. Inland Cadir Idris appeared perfectly clear, while above the mountain a most stupendous white cloud towered in air like the effusion from some volcano, and beyond it were a few broken clouds of a similar character. A singular wilderness of stones lay before me in the hollows of the hill on which I stood—a rugged wilderness sterile indeed to the utilitarian cultivator, but full of imaginative beauty to a pictorial

or poetical eye. It was now redolent of colorific splendour, from the masses of bright golden furze and purple heath about it, which thus adorned a ruin of nature's own making. The glen between the heights was filled with stones of all sizes, as if a broken mass of rolling debris had been suddenly arrested in its course; and above on either side rocks still threatened to fall, or stood upreared against the sky seemingly with purpose to do so—the covering of mother earth so scanty that her bare ribs were every where evident. On the very summit of the hill towered several masses large as logan-stones, and suggestive of Druidical rites, whether Druids had ever been really here or not. I mounted as high as I could go—I thought I had reached the very top, but another vast protuberance appeared beyond a high stone wall, and tired expectation stopped to breathe. All around me the mountain pavement was veined with white quartz—the fire and the furnace of volcanic action was apparent, but there had been a pause in its convulsive throes, or rather they had ended in death, slowly extinguished. I looked up the course of the estuary to its head among masses of mountains rising behind each other in grand array, still coloured, heathy, rocky, dull green, but all involved in the solemn shadows of evening; and above them a host of dark broken clouds just received the last faint copper-coloured hues of the setting sun, which gave them a lurid threatening meteor-like aspect. Turning towards the whitish placid sea, it lay in its extensivity calm as a vast lake, the sky clear above it, bounded by the distant mountains of Pembroke, and the long line of Caernarvonshire heights from Bardsey Isle to the

noble Rifaels, stretching northward in grand array. A thin blueish mist lay upon the horizon above the ocean, and this was reflected as a girdle to its white shining surface, while lucid vapours in the atmosphere scarcely perceptible, were yet plainly inverted in the sea like enormous pillars sinking a thousand fathoms down. Nature was sinking into repose upon the dun wilds of her furzy coverts, becoming tintless and misty as the pavement of a deserted cathedral in the sombre twilight, and no sound of bird or insect gave an impulse to the stilled air. An isolated cloud took a position before the orb of the sun and veiled it in its slow descent, yet leaving a splendid line of glory above. Presently the golden light brightened, extended, and was reflected in long waving lines like a second summer sky below. The sun was gone, the mountains sombre, and the surface of the sea saddened, but a bright after-glow still tinged the sky with softened splendour, like the memory of past joys long gleaming in the mind.

FLOWERS OF SEPTEMBER.

(CONTINUED.)

CHAP. XXII.

REFLECTIONS AWAKENED BY A GLANCE AT THE WILDER TRACTS OF FLORA'S DOMINION—SCENE CHANGED, AND "AT HOME" IN THE GARDEN—DAHLIAS, HOLLY-HOCKS, AND SUNFLOWERS, WITH THEIR ASSOCIATIONS—HYDRANGIA, CHINESE ASTER, &c.—SUGGESTIVE THOUGHTS FROM GARDENING PLEASURES—ADONIS AUTUMNALIS—SMELLING A GERANIUM—POETICAL IDEAS EMANATING FROM FLOWERS—WITHERED FLOWERS AND LOST JOYS.

"Every Month has its Flower,
Every Flower hath its hour."

OLD PROVERB.

HAVING given the misty mountains the slip, and left the glens and ravines to their clouds and waters, we shall now look out upon the softer features of the Flower Garden, where I perceive many of Flora's beauties, that might have received earlier attention, had we not amidst the ruder yet more exciting features of nature's wild haunts, been offering up our devotions in scenes where the foot of man hath but rarely trod, yet where shrouded in desolation and magnificence, the finger of God hath clothed the rugged ravine with verdure, and seated floral beauties in spots where silence and solitude brood moodily in their high fast-

nesses, that the passing pilgrim, as he hastily views the scene while the whirling thunder-cloud awes his presumption, may long, with cherished feelings, renew the image of the sanctity of nature in his mind. For if earth be not now a paradise, its solemn peaks whitened with snow or bathed by the misty cloud—its deep ravines murmuring with a thousand streams from every labyrinthal mossy hollow—its sleeping lakes reflecting in their still bosoms the roseate flush of morn or sunset—and its black precipitous crags coloured with the red lychnis, purple saxifrage, or silver sandwort—all raise a paradise of rapt emotions in the heart, transcendant beyond language. Earth and its inhabitant man, then seem

“Not less than Archangel ruin’d,” *

so soothing, affecting, and elevating, is the bright yet melancholy prospect of the most glorious earthly scenes.

We cannot, however, retain our elevation long among ethereal felicities, but must return to the tamer scenes below. Perhaps, therefore, a glance at *domesticated flowers*, may, as a contrast to the wilder tracts of Flora’s dominion, not have an unpleasing effect, and like a rest at an inn, refresh the mind, tired with the long contemplation of heaths and hills, and restore its healthful longings for renewed searches amidst the fascinations of mountain scenery. We are now “at home,” then,—so as the sunbeams flame above the morning mist with tempting brightness, throw we up the drawing-room windows, to “look out” upon the terrace through the wide parterre, thus, as LUCIAN suggests in his classic strains—

“Sipping the flowers like a Bee.”

* MILTON.

Chief among the flowers yet conspicuous in the garden, is the regal Dahlia, with its drooping globes of crimson, scarlet, marone, yellow, and white, whose innumerable varieties are the glory of floriculture, and the just pride of the nurseryman. They will now spread their gorgeous array till the first frosts wither them at one fell stroke, and render it necessary to take up their roots for preservation through the winter. The name commemorates DAHL, a Swedish botanist, thus honoured by CAVANILLES, a Spanish botanist, in 1791. Three species only are known, all natives of Mexico, but the only one from which the garden plants are derived is *D. variabilis*.* This flower furnishes a curious instance of the effects of cultivation upon the wild products of nature, for in its native country it is described as a bushy herbaceous plant, with single purple or lilac flowers, having little pretensions to beauty. It has now been cultivated in Europe for about fifty years. During this period many millions of plants have been raised from seeds, and under almost every possible variation of climate; and anomalies the most singular, not only in colour, but in general constitution and physiological structure, have been obtained. The colour of the flower has been altered from pale yellow or lilac, to every hue of red, purple, or yellow, to pure scarlet and to deepest marone, or has even been wholly discharged from the radial florets in the white varieties. The period of flowering has been accelerated nearly two months; and the tall rank Mexican weed has been in some instances reduced to a trim bush, emulating the Peony

* Among the native Mexicans the Dahlia was considered as the flower of the dead that "ghosts come to snuff at."

in dwarfishness. The yellow inconspicuous florets of the disc have been expelled to make room for the showy deep-coloured florets of the ray: what is more remarkable still, the same yellow inconspicuous florets of the disc have been enlarged, and stained with rich marone, so as to rival the colours of the ray, without losing their own peculiarity of form; and, finally, the whole foliage and bearing of the plant has been altered by the substitution of simple leaves for compound ones. Many hundred varieties of Dahlias are now offered for sale by nurserymen; and the prizes offered at Horticultural Exhibitions, and the stimulus of emulation among gardeners and amateurs, has increased the rage for new forms of the plant to such a degree, that perhaps a Dahlia-mania may run its exciting round in our day, more general, if not so dangerous or pernicious, as the Tulipomania that affected the florists of the seventeenth century. PHILIPS, in his *Flora Historica*, says, the Dahlia, in floral language is to be regarded as the emblem of *instability*; as it was introduced into this country by Lady BUTE, in 1789, the year of the French revolution; then lost from bad management—and again introduced by Lady HOLLAND in 1804, when NAPOLEON was proclaimed Emperor of the French; while it was not till 1814 that the downfall of the Emperor, and the consequent peace, enabled gardeners to obtain that copious supply of roots and seeds from France, which has resulted in the cultivation of the Dahlia in the extensive manner that we now witness, with such ornamental effect in the autumnal parterre.

Beautiful as the Dahlia has been made, the old favourite of rustic gardens, the Hollyhock, is not to

be forgotten. The Dahlia is for the future, and will probably be copiously praised by the lyrists of the rising generation, to whose care we commend the image of PHILLIPS—that the Dahlia will adorn our groves, as gas now does our towns; but the Hollyhock cherishes the images of olden days, associated with timbered picturesque farm houses, thatched cottages with their humble adornments, and old massive time-worn mansions in secluded parts of the country. Here the Hollyhock's lofty stems and bright specious, though homely, mallow-like flowers, in their varieties of rose, blood-red, yellow, orange, chestnut, or blackish purple, besides all the intermediate gradations, are well associated with the honeysuckled porch, the trim straight boxen walk, the terrace bounded by its privet or close holly hedge, the beehive stand, and the formal peacocks clipped in yew, pecking at each other. The Hollyhock is a malvaceous plant of the genus *Alcea*, and appears to have been introduced from Syria. It grows wild also in Siberia, China, and Africa, and is one of our oldest garden flowers. The late period to which it extends its floral show renders it worthy of attention in large gardens and pleasure grounds, and its towering figure has a palatial dignity above all other flowers.

Another old tenant of the parterre is sure, at this season, to attract the eye, with its flaunting staring disk of golden rays, elevated upon a tall stalk dilated to its utmost height. This is the Sunflower (*Helianthus*), celebrated by the Bard of the Seasons in continuation of an old poetical idea, as ever turning towards the sun.

——“The lofty follower of the sun
Sad when he sets, shuts up her yellow leaves

Drooping all night, and, when he warm returns,
Points her enamour'd bosom to his ray."

Various poets have dwelt upon this as a favourite comparison, and even philosophers have confirmed their reports of the Sunflower's turning itself round with the course of the sun.* OVID says of *his* Sunflower (transformed from the nymph Clytia, who vainly loved Apollo)—

"Still the lov'd object the fond leaves pursue,
Still move their root the moving sun to view."

Dr. HUNTER, in his notes to *Evelyn's Sylva*, says "the story of the Sunflower in *Ovid's Metamorphoses* is confirmed by daily observation;" though OVID's plant could not be the modern Peruvian Sunflower:—and Sir J. E. SMITH absolutely states that the stem is compressed to facilitate the movements of the flower, which, "after following the sun all day, returns after sun-set to the east." So COWLEY, in his *Poemata Latina Plantarum*, thus makes the "Flos Solis" loquitur:—

"Ipse meum semper submisso vertice adoro
Semperque specto, semper observo patrem;
Qua vertit vultus, vultus obverto sequaces,
Et semper hærent oculi in obtutu pio."

With bending head submissive I adore,
With constant gaze my father's face explore,
I turn my face following where'er he turns,
Still fix'd my pious gaze as round he burns.

* Dr. DARWIN in his *Loves of the Plants*, could not of course afford to dispense with so poetical a simile, but quotes HALES' Vegetable Statics for the fact that "the Sunflower follows the course of the sun by nutation, not by twisting its stem." In his text the Dr. says—

"With zealous step he climbs the upland lawn,
And bows in homage to the rising dawn;
Imbibes with eagle eye the golden ray,
And watches, as it moves, the orb of day."

MOORE, in his *Irish Melodies*, has seized upon the same simile, in the following beautiful stanza—

“Oh the heart that has truly lov’d, never forgets,
But as truly loves on to the close;
As the Sunflower turns to his God when he sets,
The same look which he had when he rose.”

Unfortunately, however, for these fine images, this “same look,” as Paddy might say, “is often *no look at all*; for many and many’s the time we have seen Sunflowers obdurately pointing to the north all day long, having good cause, no doubt, to be sulky with the sun; and it is by no means uncommon in a group of Sunflowers, to perceive their staring dial-like countenances pointing to every quarter of the Compass. The French have perpetuated this error in their name *Tournesol*; though, no doubt, as old GERARD long ago observed, “the flower of the Sunne is called in Latine *Flos Solis*, taking that name from those that have reported it to turne with the sunne, the which I could never observe, although I have endeavoured to find out the truth of it; but I rather thinke it was so called, because it doth resemble the radiant beames of the Sunne, whereupon some have called it *Corona Solis*, and *Sol Indianus*, the Indian Sunflower.”

No doubt the *Helianthum* obtained its name from the large ray-like golden flower sometimes exceeding a foot in diameter, resembling the disc of the sun, and so CHURCHILL mentions it as

———“the proud giant of the garden race,
Who, madly rushing to the sun’s embrace,
O’ertops his fellows with aspiring aim,
Demands his wedded love, and bears his name.”

But a confusion has arisen on the subject from the old European Marygold (*Calendula officinalis*) or

ancient sunflower, having been confounded with the American *Helianthus*, or modern Sunflower. As the latter was only introduced from the New World, it is clear that OVID and other ancient writers could not have had the *Helianthus* in view. Now the Marygold (named catholically as *Aurum S. Mariæ Virginis*)* was of old noted as a flower of the sun, that according to SHAKESPEARE—

—“ goes to bed with the sun,
And with him rises weeping.”

Hence the Marygold was called by herbalists *solis sequa*, or sun-follower, and *solis sponsa*, spouse of the sun; and so far correctly, as LINNÆUS observed that the Marygold was usually expanded from nine in the morning to three in the afternoon. So HERRICK, as keen a poetical observer as the learned Swede was a botanical one, denies that it could be evening, as—

“ No Marygolds yet closed are,
No shadows yet appear.”

* The common officinal Marygold which grows naturally in the corn-fields of Italy and in many other parts of Europe, is said to have derived its name from its being more or less in blow at the times of *all the festivals of the Blessed Virgin Mary*, the word gold having reference to its golden rays, likened to the rays of light placed around the head of the Virgin by painters.—Thus it is observed in the *Circle of the Seasons* “at Candlemas or the Purification of our Lady, (Feb. 2nd,) in warm climates the old last year’s plants will show a few flowers. Even in our climate a few flowers appear about Lady-tide. The full flowering takes place about the *Visitation*, July 2nd. The young Plants flower about the *Assumption*, Aug. 15th. Seedlings of the same year will flower about the *Nativity of our Lady*, Sept. 8th, and they continue to flower through the whole period, including Nov. 21st and December 8th, thus blowing on all the Virgin’s Feasts. Thus say the old writers, and the fact is true.”—So it is reported the latin name *Calendula* was given to the plant because it was in flower on the Calends of every Month, which perhaps may be correct in the sunny clime of Italy. Indeed the Italians have given it the name of *Fiorrancio*, or *Flower of every Month*. Marygold flowers often continue open to near sunset.

But SHAKSPEARE, wakens up the lady-fair in *Cymbeline* on the truthful assurance that

“ Winkin Marybuds begin
To ope their golden eyes,
With every thing that pretty bin,
My lady sweet arise.”

Indeed it appears that at first, according to GERARDE, the *Helianthus* was called *Sun-Marygold*.

The American Sunflower was brought by the Spaniards from Peru, where it appears it was consecrated by the Peruvians to the worship of the bright luminary of day; and the Virgins of the Sun, when officiating in their temples, were crowned with golden *helianthi*, wearing some on their breasts, and holding others in their hands, which is described as forming a spectacle of imposing grandeur. Sunflowers, with all their gaudiness, should, however, be but sparingly scattered in a garden, on the principle that—all is not gold that glitters. To the botanist the Sunflower offers a good study of the 19th class of LINNÆUS—*Syngenesia*, where one common receptacle encloses an assemblage of florets of different characters. The florets of the ray form the golden fringe of petals or *ligulate* florets, which are all for show, and guard what we may call the seraglio within: since this flower belongs to the “*Polygamia frustranea*,” where the radiate florets having neither stamens or pistils cannot produce seeds, and, by a poetical image, are therefore inferred to be made *in vain*, or for show only. The florets of the disc are, however, *tubular*, each having five anthers, with a single pistil crowned by a bipartite stigma, and each of the florets produces a seed. The fertile florets are in general so numerous,

that 2,362 seeds have been taken from the disc of a single flower, and hence, in rural spots, these seeds are preserved for fattening poultry, and in the United States are pressed for the oil they contain. From what has been observed, it is obvious, that the more double a syngenesious flower becomes, the less seed it can produce, as this fullness of flower, as gardeners call it, is caused by the change of *tubular* into *ligulate* florets, or those that are inconspicuous and produce seed, into those that are specious and produce none; and therefore those that are *all show* produce no fruit at all—a moral induction, which I need not attempt to sharpen in further detail.

As a flower suited for the base of the porch or arbour, the *Hydrangea* must not be forgotten here; the large bunches it forms presenting a very handsome appearance. The flowers, from over-development, are almost always barren, and very variable in their colour, passing through every shade of green and blue to red. In peat earth, especially, they assume a rich blue tint; yet, in rustic gardens, plants, with both red and blue flowers, sometimes present themselves in the same soil, with a fine ornamental effect. A moist situation is most favourable to the luxuriant development of the *Hydrangea*, and hence, as one of the most thirsty of plants, its name, derived from the Greek, as a water-vessel, is taken. When in a drooping state, a supply of water revives it as magically as it would a man dying from thirst.

At this period of the year, the trailing *Nasturtium* (*Tropæolum majus*),* becomes a great ornament to the

* The Latin name refers to the fancied *trophies* its flowers and leaves form—likened to empty helmets and shields. The English name points out its affinity in smell, taste, and general properties, to the *Nasturtia*, or

garden, especially if it be trained upon trellis-work, or against a wall, its brilliant orange flowers flashing gorgeously upon the eye. The extent and height to which it will spread is really wonderful; and it is curious to observe that the long petioles of its remarkable leaves perform the office of tendrils, and curling round any object near them, support the plant high in air, though to an inattentive observer it is not, at first sight obvious how this is done. The leaf of the *Nasturtium* may be said to form a living vegetable Mackintosh, or rather indeed, is far superior to that useful article, for not only is it impervious to rain, but no wet has power even to moisten its surface, rolling quickly off in silver globules. The blossoms of this Peruvian plant occasionally emit electric sparks in the twilight, as noticed by the daughter of LINNÆUS, ELIZABETH CHRISTINA. The *Nasturtium* though pretty enough as a domestic plant, seems hitherto to have missed poetic celebration — remaining for the sympathetic memory of some future bard.

The pretty Canary-bird flower (*Trapæolum adunatum*), is a later introduction than the common orange *Nasturtium*, but from the yellow hue and curious form of its flowers well contrasts with the other in the garden, and has an elegant aspect as a porch or trellis climber.

One of the principal embellishments of the autumnal parterre is the Chinese Aster or Starwort (*Aster Chinensis*), now a common denizen of European gardens, though introduced from China only about a century ago. Asters are of various colours, deep pink,

land and water cresses, a very curious circumstance in plants belonging to different natural families. The capsules, in particular, make a very wholesome pickle.

dark purple, pale blue, and intermediate colours, and when planted out in large beds have a splendid effect. The French name of *Queen Daisie* (*Reine Marguerite*) given to it, shows it to be of the same class as our humble "wee modest crimson-tipped flower," which, though now lost sight of, will not be seen without pleasure by the early wanderer of the ensuing spring. It is said that in China the varieties of Asters are so disposed as to rival in brilliancy the richest patterns of the carpets of Persia, or the most curious figures that the artist in fillagree can devise. The Aster is well adapted to variegate the shrubbery, as its showy disc exhibits its bright rays even to November. The Italian Aster (*A. amellus*), with blue and yellow flowers, is considered to have been the plant alluded to by VIRGIL in his *Georgics*, which he says was of a golden colour, surrounded by purple leaves or petals, and which was often used to adorn the altars of the gods. The common Michaelmas Daisy (*Aster Tradescanti*), so called from commencing flowering about Michaelmas, is a characteristic flower of the garden in September, growing tall and shrubby, and continuing to the end of November. Bees and Flies cluster on the flowers in great numbers for it is almost the last hope they have to cling to. The latin specific name commemorates JOHN TRADESCANT, jun. who brought the plant from Virginia to England, about 1633. Its flowering time caused it to be appropriated to the feast of Michaelmas—

"The Michaelmas Daisy among dead weeds,
Blooms for St. Michael's valourous deeds."

China has contributed another specious gift to the florist in the late flowering *Chrysanthemum*, the name of which, golden flower, is, however inapplicable, as a

great number of them bear silver, pink, lilac, or purple, as well as yellow flowers; but this error it is rather too late now to repair, unless any poet feels inclined to marry to immortal verse the Chinese names of *Yok qui lung kok fa*, and *Pak tseen yong kok fa*, by which appellations the white varieties of the *Chrysanthemums* are known in China. It has been remarked that this favourite flower of the Mandarins has contributed to shorten the floral winter more than any exotic, as when cultivated in pots and placed out in favourable weather, its flowers will continue in full beauty to adorn the halls and vestibules of mansions, at Christmas, in places where tender plants could not endure to stand. Notwithstanding its exotic origin, "our English varieties" of *Chrysanthemum*, says GLENNIE, "will soon outnumber and excel the original, and it will be, like the *Camellia Japonica* essentially English, or at least European, before many years pass over our heads. The plants are valuable as out-of-door ornaments in mild autumns, for they succeed the *Dahlia*; and although a very severe frost will destroy foliage and flowers, they will live through a frost which will cut off the *Dahlia* past recovery."*

We have now reached the limits of our flowery domain, and have only opportunity to glance at without describing in detail the rich crimson *Rudbeckia*, the African and French Marygolds (*Tagetes*), varying from bright yellow to a deep orange colour, which often appear very splendid and beautiful in contrast with the deep purple *Asters*, and the tall glittering Golden-Rods (*Solidago viminea*), as contributing to the peculiar glow, which, under the influence of a

bright sun, has at this season so exciting an effect. For bright and exhilarating is the influence of the late autumn flowers, like some spectacle of pomp and pageantry glittering before the eye, but not awaking the tender melancholy resulting from other floral contemplations, unless memory or incident rivet a stronger charm. The character of the flower may have something to do with this, as we do not seek a sunflower as we have to search after a violet. But yet the gaudy daffodil of the spring is more suggestive than the brightest autumnal flower, and perhaps after the storms and barrenness of winter the budding year awakes keener impressions;—in autumn we have become almost satiated with flowers and sweets, and their excitement has become familiar to us. But when a sudden killing frost cuts off our favourites at a stroke, feeling and poetry revives again among withered flowers and falling leaves.

Before finally quitting the garden and its petted captives, two or three familiar flowers of memory seem to call upon us as if from the beds of the past—there at least they smile bound up with olden joys and old fashioned gardens,—they may not be in every new one now. One of these is Honesty or Money-flower (*Lunaria*), whose broad round silvery silicles *honestly* display from their transparency whether any or what number of seeds are contained within them. Round as the full moon they thence gave the latin name of the plant, which as thus fancifully connected with the moon, was supposed to be an *enchanted* and *bewitching* herb. Its lilac flowers appear early in the summer. Nor can we forget the sweet purple Stock of every cottage garden in the country—

“Lavish Stock that scents the garden round,”

since this seems ready ever to freshen our olfactory nerves when we think of it; and indeed actually the annual or Ten-week Stock, sown in May, will often continue in flower all through Autumn until near Christmas. Another old favourite entwined with earliest recollection, is the Rosebay Willow-herb (*Epilobium angustifolium*), whose lofty spikes of bright violet combined with their rose-coloured elongated siliques present a combination of colour and a show of splendour not excelled by flowers of greater pretension. How well do they recall gardens known in days long past, where the footsteps of loved relatives are all now, alas, long ago effaced.

The Rosebay Willow-herb is now found naturalized in many spots, but must have spread much since the days of GERARD, who only mentions it as wild in Yorkshire in his day. The blood-red Love-lies-bleeding (poetical name!), and another flower of the genus *Amarantus*—the Prince's feather (*A. hypochondriacus*), are old garden flowers of autumn, dear to thoughtful love. So may any one in mature life resuscitate in their garden ideas of early prime as well as of present enjoyment, if, like COWLEY, their wish should be in the evening of life to “be master at last of a small house and large garden,” and there dedicate their time to the culture of flowers and the study of Nature.

In closing this floral sketch, one little characteristic flower, seen in almost every garden at this time, must not be forgotten, as it commemorates the old classical story of Venus and Adonis, the crimson or deep scarlet flowers of the little *Adonis autumnalis* being stated to have received their tinge from the blood of

the beautiful hunter. Unfortunately, however, botany has its "glorious uncertainties," like law, and this is one of them; for it has been gravely remarked, that "whether the goddess of beauty changed her lover into this plant or the *Anemone*, would be difficult to decide, since the Linnæan system of dividing plants into families did not exist when the gods and goddesses made love upon the earth; and previous to the time of the Swedish botanist, the *Adonis* was considered to be one of the *Anemonies*, which it greatly resembles." In answer to this doubt, I can only alledge, as in the case of the celebrated something black *as* a crow, that the flower of the *Adonis* is at any rate as red *as* blood, whether the vital current of the goddess lover ever came in contact with its petals or not. And now, if any one should take exception at this flower-sipping as an idle or unprofitable employment, I shall merely, in defence of my *floration*, make this *quotation* from the ambling *versification* of the once admired COWLEY, who thus apostrophizes on the subject—

"Who, that hath reason and his smell,
Would not among Roses and Jasmine dwell,
Rather than all his spirits choke
With exhalations of dirt and smoke?"

This is certainly a home thrust, and I therefore confidently anticipate that I shall be able to count a pretty considerable number of *noses* in favour of botanical looking-out!

As writers more familiar with the study than the field, often refer sarcastically to "*mere* botanists," as if so taken up with system and technical verbiage, as to be incompetent to feel in their souls the divine

glories of creation, or even to nourish a meditative or inspiring thought imbibed from the plants they examine, it may be well to call in the evidence of the uninitiated in science as to the pleasure and instruction derivable from the inspection even of a single leaf. And the following description of the sensations of a novice on first inspecting a *Geranium*, though naively expressed, are not the less intelligible. "I remember after smelling at the first leaf of the *rose Geranium*, and also when I received additions to my stock, how I was struck with wonder and amazement at the power, wisdom, and goodness of God, in imparting to the *green leaf* of one plant the fragrance of another, such as the balm, musk, pennyroyal, &c. How condescending to our senses, how indulgent, as it were, even to our childish and playful fancies! It was thus my mind was struck when I smelt the first leaf. Thought I, it is strange that a *green leaf* plucked from a plant no way similar, should possess all the flavour of the *flower* plucked from another." * Ideas like these are the first efforts of poetry in the human mind—thought, analogy, fancy, reflection, and images of purity and loveliness are all awakened in the sensitive mind at the sight of green leaves and opening flowers—even memory sternly surveying the wreck of the past, sadly grasps the fading flowers that alone remain to her of the pictures that have faded away, and these are the talismans that again conjure up departed joys—

"The heart's affections— are they not like Flowers?
In life's first spring they blossom ; summer comes,
And 'neath the scorching blaze they droop apace ;
Autumn revives them not : in languid groups

* GRANT THORBURN'S *Forty Years in America*.

They linger still, perchance, by grove or stream,
But Winter frowns, and gives them to the winds ;
They are all wither'd ! ” H. G. BELL.

So adieu to the joys of the garden and its cultivated
gems—our last days with the waning year must be
devoted entirely to the woods and hills, and the pro-
ductions of Nature in her wildest haunts.

WITHERED FLOWERS AND LOST JOYS.

Where are the flow'rs of Summer ?

Where the hay

That scented ev'ry meadow ?—

Swept away !

Where are the hopes that brighten'd

Fair as they ?

Where are the friends perpetual ?—

Gone away !

Where are the scented Violets

And the May

Whose fragrance kindled pleasure ?—

Died away !

Where are the thoughts that rested

In their play

On some ideal fancy ?—

Fled away !

Where are the blooming roses ?

Dead heart, say

Where are life's cherish'd Roses ?—

Blown away !

Where the desires that floated

Light and gay

Like coloured clouds of sunrise ?—

Borne away !

Where are the lilies flinging
To the day
Night-chasing fragrant beauty ?—
Thrown away !

Summer's bright flowers no longer
Can delay ;
Joys with the leaves are falling
All away !

Friendships and Loves long cherish'd
Cannot stay ;
Change brings th' autumnal tempest—
Where are they ?

Yet in the past they flourish
When a ray
Streams from the kindled memory !—
There they stay.

EXPLORATORY NOTICES FOR SEPTEMBER.

THE gleanings of Flora's fair domain is all that the botanical explorer can reasonably expect in this month of shortened days, bright and exhilarating as are its mornings, and its evenings often glorious with the harvest moon, or lighted up with the grey, green, or ruby-colored columns of the mystical Aurora Borealis.

The fructification of the Roses, and many other shrubs, may now, however, be obtained, and should be carefully examined, as, in botanical definition, the character of the *genus* being taken from the fruit, and as it is often discriminative also with respect to the species, the observer who desires to verify every fact in nature for himself, should take the opportunity only presented at this time, of gathering ripe fruits and berries. Indeed, several shrubs, as the *Euonymus Europæus*, and the *Rhamnus frangula*, are far more conspicuous and beautiful in fruit than in flower, and are more easily detected in the autumnal season than at any other time. The former, loaded with capsules of the brightest pink, when lighted up by a passing sunbeam, is an object of great beauty. On the borders of woods, and in shrubberies, the profusion of berries now exhibited, with their varying tints, from the deep black of the Dogwood (*Cornus sanguinea*), the light orange of the Guelder-rose (*Viburnum Opulus*), and the still deeper orange of the clusters of the Mountain Ash, to the innumerable blood-red *haws* that crown

the lofty hedges, offers by no means an uninteresting or uninteresting spectacle.

“The thorns and briars, vermillion hue,
Now full of hips and haws are seen ;
If village prophecies be true,
They prove that winter will be keen.” *

It is a popular idea that an abundance of hips and haws betokens a hard winter, but this is not certainly true. Nevertheless, during a ramble at this period, an excitement is created by the birds of various hues and cries, that, attracted by the ripened fruit, are revelling in the “common feast,” now bounteously spread around for all God’s creatures. The shrill short scream of the Blackbird, the harsh shriek of the Jay, the chatter of the Magpie, and the solemn cawk of the Rook, resound on all sides among the bushes, as on diverse wing they fly off before the wanderer’s disturbing foot—and, see ! in that fiery-tinged pear-tree a flock of Fieldfares have just alighted, with dissonant cries, after their aerial sail from the shores of the northmen, and the last Swallow is seen flitting sadly and disconsolately over the saffron-flowered mead.

The orchards in the cider and perry counties are now ripening their fruit, and the sunny side of the apples streaked as with sunset clouds, or deeply blushing, present a beautiful appearance to the eye, whether on the acclivities of the deep valley of the Teme, in Worcestershire, or on the undulating red lands of Herefordshire. The commencing autumnal gales often strew the ungathered fruit upon the ground, to its injury and spoliation, whence has arisen an old farmer’s rhyme—

“September blow soft
Till the Apple’s in the loft.”

* CLARE.

One of the most singular parasitical plants that Britain produces, the greater Dodder (*Cuscuta europæa*), should be diligently sought by the enquiring botanist, just before harvest-time, among peas, beans, or vetches. It is generally considered a very rare plant, though, in fact, when it does occur, it extends itself as if with the most malicious activity. Though often on the look-out for it, it was only in 1840 I first saw it, when, in passing through a field of vetches, at the Berrow, Worcestershire, near the southern termination of the Malvern chain, I was struck with the red appearance of a part of the vetches—it was *the Dodder*, which had enveloped them in an inextricable stringy mass, and had borne them down to the ground in its poisonous embrace, tied like Gulliver's head by every hair. Yet, amidst the red clammy and stringy mass it had formed, the round bosses of delicate wax-like flowers shone with extreme elegance. Since then, a farmer pointed it out to me in a bean-field, not far from my residence, at Forthampton, clasped about some bean-stalks most luxuriantly, but said that it had not occurred there for some years previously. This strikingly illustrates a remark made by KIRBY and SPENCE, in reference to the relations of insects with plants, that “sometimes it happens that only a single opportunity occurs, in a man's life, of seeing certain plants growing wild: such opportunities should never be neglected.”* I have often had occasion to see the force of this admonition, for so many plants might, like *Erica vagans*, be justly termed wanderers, that a curious plant undeniably observed in a particular locality one year, may be sought there,

* KIRBY and SPENCE, vol. iv. p. 507.

afterwards, without any success. It is remarkable that precisely at the time when the Beans are harvested, the seeds of the Dodder become ripe, and fall to the earth, where they remain, probably, some years before they again vegetate. Many, however, are carried to the bean-stack, and may thus rest in the rick for years, till again called forth, by circumstances, to renew their parasitical depredations.

WILD FLOWERS OF OCTOBER.

CHAP. XXIII.

AUTUMNAL WEATHER FAVOURABLE FOR EXPLORATION—
ADVENTURE AT MAENTWROG, MERIONETHSHIRE—FALLS
OF FESTINIOG—A BREAKDOWN—ASCENT OF SNOWDON—
PLANTS GATHERED ON ITS LOFTY ROCKS—CLOUDY PROS-
PECT—RAINY OUTPOURINGS—BRAMBLES AT CAUNANT
MAWR—A TRUCE TO WANDERING.

“Upon the mountains, gemmed with morning dew,
In the prime hour of sweetest scents and airs.”

WORDSWORTH.

OCTOBER is undoubtedly the best month of the year in Britain for the pedestrian wanderer, and therefore by no means unworthy the attention of the “Botanical Explorer.” More especially is it in general favourable for ascending the mountain fastnesses of Wales or Cumberland. The morning opens with all the balminess of spring without its bitter blasts—with all the warmth of summer, without its oppressive glare; sleeping masses of vapour rest in the hollows of the hills like silver lakes; and the first rays of the rising sun glancing upon the fading forest garnishes it with gold, or resting on some old pear-tree, charms the sight with the richest hues of crimson and carmine exhibited by its foliage. In the height of summer it is but rarely that any very extensive view presents itself from a lofty eminence, in this uncertain climate; for

either a misty glare obscures the distant horizon in some quarter or other, thunder clouds come whirling about the mountain side, or worse than all, drizzling and settled rain overwhelms the disappointed explorer of Nature's beauties. But the calm and often cloudless days of autumn generally offer opportunities of the most exciting kind, when no wind blows too rough a cadence, and when the heat generated by exertion is not of that debilitating kind before which, as is frequently the case in the dog-days, the enervated frame sinks in passive and overpowering fatigue.

It may, however, be thought that at this late period of the season but few plants can be met with to give zest to botanical ardour, but this is by no means the case, for in favoured sheltered nooks among the hollows of the rocks, many alpine plants continue in flower till over-powered by the frosts of November; while the cryptogamous vegetation of the mountains now appears in fine perfection—*Ferns* of the most delicate structure glisten with a golden green lustre within the dark cavities of the precipices—the *Lichens* stain the sullen rocks with yellow, brown, and purple, or fringe their edges with a hoary beard—and every bubbling spring is surrounded with an emerald carpet, where the *Mosses* lift up to the observant eye their brown *thecæ*, or urns of fructification, either gracefully adorned with a light *calyptra* or veil, or covered as in the *Polytrichi* with a shaggy hairy cap. But to make these observations more obvious, I will detail the proceedings of a botanical excursion I made a few autumns ago, in *Snowdonia*, which will enable me to allude to some plants that have not previously fallen under our notice.

* * * * *

I had got, it matters not how, to Maentwrog, Merionethshire, within the confines of that lovely vale adorned by the graceful windings of the Dwyryd, of which Lord LITTLETON once said, that with the woman one loves, the friend of one's heart, and a good library of books, one might spend an age in it, and think it only a day. Anxious to explore the beauties around, I first started for the two waterfalls formed by the little river Velenryd, one of which is called *Rhaidyr-du*, or the Black Cataract. Scrambling down with some difficulty amidst entangling underwood, I reached the stony bed of the river, gloomy even at noon with the masses of dense umbrage around. It was a burning day, and seated on a mossy rock below the fall in this cool recess, I listened to the hoarse splash of the waters, ever and anon raving with fresh repercussion, and gazed on the flowers around with a feeling of delighted ecstasy. The tranquil repose of such moments often recurs to the memory amidst the vexations or vacuities of after life, and again presents a healing balm to the perturbed spirits—such are the advantages the votary of nature derives from his pure and vivifying contemplations. Where bogs skirt the banks of the mountain streams as they do here and in many parts of North Wales, the spicy scent arising from great quantities of the Bog Myrtle (*Myrica gale*) growing together gives a peculiar and exciting fragrance to the air.

Returning over the wooded bank of the stream, and dashing quickly along a very narrow path that led to a precipitous ledge of rock from whence another waterfall sprang foaming into view, I came into rough collision with a luckless sketcher, who was

aiming to *take off* the water, and so closely did our encounter approximate us to the verge of the cliff, that the water was very near *taking off* the pair of us! Chance having thus brought us together, we agreed to travel for the next day in company; but I soon discovered that I had got a *SOLEless* companion, for as Sir WALTER SCOTT says of the Palmer in *Marmion*, so might I say of my friend of the waterfall—

“His sandals were with travel tore,”

and could scarcely be said to be in tenantable repair, while his diminutive person, armed with huge umbrella, and graced with sketch book and concave glasses, gave him a characteristic and somewhat ludicrous appearance. Having been the day before at the Falls of Festiniog, I obtained his direction to them, proceeding early the following morning up the romantic vale, and thus obtained specimens of the pretty *Gnaphalium sylvaticum*, as well as of a rare *Rubus* that grows above the bridge between the two falls of the Cynfael. The Mountain Ash (*Pyrus aucuparia*), profusely adorned with pendant fruit of the most brilliant red, here presented itself, I think more beautifully than I have any where before seen it, shrouding the steep rocks excavated to a fearful depth by the “fierce footsteps” of the mountain torrent.

“The Mountain Ash

No eye can overlook, when mid a grove
Of yet unfaded trees she lifts her head
Deck'd with autumnal berries that outshine
Spring's richest blossoms.” *

In the deep chasm, cut out by the river, stands an isolated pinnacle of rock, cracked and riven as if by some tremendous storm or convulsion of nature, and

where, according to traditional report, the mystic rites of enchantment were once performed. For "a deed without a name," truly such a locality is not ill adapted—around the shattered pile the water roughly roars in its progress on the one hand, or on the other forms sullen pools black as obsidian, into whose treacherous depths it would not be enviable to fall; broken cliffs rise on either side so lofty, and so shaggy with the mingled foliage of the sable Yew and Wytch Elm, that day-light struggles almost in vain to penetrate into the murky glen, while the maddening plunge of the stream, as it leaps out of this Stygian den, is alone heard to break the stillness around "the Enchanter's chair," by its intermitting roar.

In the grounds of Tan y Bwlch Hall, which I next progressed to, I observed the frondose lichens *Parmelia herbacea* and *Sticta pulmonaria*, in great abundance and luxuriance, and bearing the finest fructification. The walks here well merit careful exploration, while the eye is charmed with spreading groves, and romantic scenery boldly rising from the finely watered valley where the river Dwyryd winds gracefully.

But to return to my artistic friend. An unexpected bump had brought us in contact *with*, and another incidental shake in life's journey sent us off again at a tangent *from* each other. We had both mounted the Caernarvon mail to get to Beddgelert, but scarcely had we made a start when my companion's spectacles fell, and were placed *hors de combat*, or fit only for hospital service. He had scarcely recovered from this disaster, which I remarked was a bad omen, when his snuff-box fell, and was with difficulty recovered. His

packet of vesture next ventured on a forward movement to his irrepressible chagrin, and last of all *we fell* also—for down tumbled one of our horses as if shot, and in a moment we were all hurried *sans ceremonie* into the dusty road, to advance or retrograde as we thought proper. Ultimately we shook off the mail that had so unkindly shaken off us, and walked through the majestic pass of Pont Aberglasslyn; and after refreshing at the Beddgelert Hotel, I engaged a car to convey me to Llanberis, where I proposed my unfortunate companion should accompany me, and forget his sorrows; but inconsolable for his broken spectacles, which he said ruined all his prospects, he would go no farther than the turn to Capel Cerig; and, as BUNYAN says, “I saw him no more.”

As I progressed down the pass of Llanberis, the evening suddenly closed in, the wind moaned cheerlessly in fitful gusts, and Snowdon and his satellites put on their darkest array—nevertheless I determined to ascend the next morning if possible. Over my tea and snug fire at the Dolbadran Castle* (which by the

* Dolbadran Castle itself is a ruined fortalice, of which a shattered round tower now only remains, situated on a rocky eminence, between the Upper and Lower Lakes of Llanberis, and its grey head encompassed with lofty mountains, is reflected in the clear waters with pictorial effect. In the Upper Lake *Lobelia Dortmanna*, *Sparganium natans*, *Subularia aquatica*, and *Isoetes lacustris* grow; in and about the Lower Lake, *Nymphaea alba*, *Alisma natans*, *Epilobium angustifolium*, and *Trollius europæus*. I did not examine the woods above, where probably several rarities may be found, as a specimen of *Epipactis ensifolia* was given me by my botanical guide hereafter mentioned, gathered there by him. The intermittent roar from the explosions in the slate quarries seen from this point, comes with fine effect upon the ear, like so many avalanches among the mountains. Very near to and sadly eclipsing the ruined tower of Dolbadran, an immense pile of building called “the Victoria,” has been erected of late years for the accommodation of visitors. I would, however, advise the Botanical Explorator to do as I did, and attack “the Castle,” although the smiling widow is a widow no longer.

bye with its smiling widow landlady I strongly recommend), I held a consultation with a guide. He was willing enough to convoy me to the summit only, but when he heard that I wanted to climb the precipices of *Clogwyn du yr Arddu* and *Clogwyn y garnedd*, and search about for plants, he begged leave to decline the honour of attending me, as he said the whole day would be occupied—while if it proved fine (a rarer circumstance at Snowdon than red letters in the calendar), he could take three journeys with different parties from Llanberis in the same day. There was, however, he told me, a sort of supernumerary guide, who was fond of gathering plants, and probably he might be induced to explore the crags with me.

Next morning a brisk little Welchman, active as the goat of his native mountains, with a tin box on his back, on which was painted "William Williams," presented himself to my inspection, and said that he was so fond of plants, that he would go with me any where, as long as I pleased. My arrangements were at once made, and we started. The day was fine, and though the up-hill work was a little toilsome and tedious, I experienced no inconvenience except from a furious gust of wind on the more exposed parts of the mountain. An exposure on the bleak acclivity throughout the night, would, however, prove rather serious, as has several times been experienced by incautious tourists. Williams told me of an instance that fell under his own cognizance. A gentleman who formed one of "a party who had ascended to the Snowdonian monarch, suddenly took it into his head when on the summit, that he would proceed to Caernarvon, instead of returning back with his friends to

Llanberis. The Caernarvon road being clearly visible, he felt no doubt of finding his way, and ridiculed every persuasion offered to divert him from his purpose. The following morning a party was ascending Snowdon about four o'clock, to see the sun rise, when they were alarmed by shouts and cries of distress from the Beddgelert side of the mountain. Williams, one of the attendants of the party, hastened down to the quarter from whence the cries proceeded, when he discovered the same gentleman who had left his party the day before, in a dreadfully cold and exhausted state from long wandering without food, and exposure to the night air. It appeared that he had been deceived by a distant shining rivulet, which he had mistaken for the road, and being unable to regain the track, as well as bewildered among the intricacies of the mountain as twilight came on, he had wandered to and fro in confusion and uncertainty, till overcome by cold and exhaustion; and it is probable he would have perished, but for the circumstance I have mentioned. As it was, serious illness ensued, and he was confined to his room, at Llanberis, for above a fortnight.*

At length I stood on Snowdon. Dull and dark, and cold, the clouds hung about its subject heights, and obscured three parts of the landscape, and its lakes slumbered in their deep hollows like misty mirrors—two or three, however, putting on a beautiful sea-green tint. Twenty-five glitter amidst hollow glens and ragged crags on a very clear day, but I

* The melancholy fate of poor STARR, a clergyman of Northampton, who perished amidst the Snowdon rocks, under very mysterious circumstances, and whose remains were not discovered till some months after his death, is still the talk of guides and tourists.

could now make out only twenty. The lakes of Llanberis, the vale to the Menai, and the whole island of Anglesea, presented a glorious spectacle, and towards Beddgelert, Lyns *Dinas* and *Gwinant* were beauty spots of no mean interest, as well as the little pools called *Llyn Llwdaw* and *Llyn y Cwm Glás*, beneath the horrid pointed crags of *Clogwyn y Garnedd*; but towards Capel Curig a dense mist brooded over the low country, from whose head quarters, advanced squadrons occasionally pushed on, and dark amidst the fleecy masses that mantled their shoulders, rose the gigantic heads of Carnedd Llewellyn, Moel Siabod, and the Glyder Vawr, as if contending for pre-eminency with Snowdon himself. On *Yr Wyddfa*, the highest point of Snowdon, the trigonometrical surveyors have reared a permanent stony cairn or mount, surmounted by a pole, which has already received the indentations of almost every letter of the alphabet, repeated as reporters sometimes tell of toasts at public dinners, *nine times nine*!—so inveterate is the habit of Englishmen to leave a memento of their track behind them—so tempting is it to have one's name elevated above the clouds, and literally held aloft by Snowdon for the admiration of succeeding generations! Fortunately the beacon post is stout and strong enough to bear the hacks of many a host of invading carvers, but it is to be lamented, that unless they climb higher and higher, there will soon be a deficiency of "room and verge enough" for these barbic operations; so that it may be advisable for future adventurers to change the scene, and seek to carve out immortality in the classic waters of "old Conway's roaring flood." I found a party of gentlemen had just preceded me

to the proud *Wyddfa*, and as no one ever thinks of mounting Snowdon without a pocket pistol about him, we now prepared to fire, and simultaneously cheered to the health of our fair youthful Queen, from the highest point in England and Wales. Let no teetotalter venture to mount Snowdon with presumptuous foot, as he values the well-being of his outer envelope, without a medical certificate first had and obtained, in his pocket, for a little *relaxation* from the rule of his order. At all events "*Lookers-out*" may be considered privileged persons, more especially when there are no "*Lookers-on* !"

Although experimentalists have often affirmed that the constituents of the atmosphere are precisely the same upon the loftiest mountains as in the closest cities, no one who has ever snuffed up

"The thin air upon the iced mountain tops,"

can assent to the effects of their *respiration* being the same. The freshness of the mountain air, for ever kept in a state of purity by the blowing wind, is bracing and exhilarating in a high degree, and its Ithuriel penetrations seem to unmask the spirit, and draw forth its best aspirations, at the same time that the soul, lifted above terrene affairs, distinguishes that pulsation that throbs to nobler views than those of earth.—But "to our mountain sport." Around the summit of Snowdon grows the humble *Salix herbacea*, a species of willow, and the smallest tree known in the world, for a complete specimen of it, trunk, leaves, flowers, and fruit, might be concealed within the leaves of a thumb almanack ! Immediately below *Yr Wyddfa* extend the series of awful crags denominated *Clogwyn-y-Garnedd*, some of them above 600 feet in

perpendicular height. Here, amidst the clouds that perpetually saturate this fearful reef, most of the famed plants of Snowdonia grow, as mentioned by RAY, and other British botanists.* Among the chasms of this ridge I began cautiously to slide; but the little Welchman, with his tin box on his back, actually bounded like a roe, and soon brought me, from an almost inaccessible peak, some specimens of the rare *Saussurea alpina*, or alpine Saw-wort. My own researches produced me the *Oxyria reniformis*, or Mountain Sorrel, Scurvy Grass (*Cochlearia officinalis*), Mountain Fescue Grass (*Festuca vivipara*), the silky leaved *Cerastium alpinum*, Mountain Rue (*Thalictrum alpinum*), the beautiful Ferns—*Allosorus Crispus*, *Cistopteris fragilis et dentata*, and *Asplenium viride*, as well as Alpine Clubmoss (*Lycopodium alpinum*), and the pretty prickly Clubmoss, *L. selaginoides*. *Arenaria verna* was also plentifully in flower, its silver blossoms shining elegantly amidst masses of dark rock. *Polygonum viviparum*, and many other alpine species might be referred to—but one expedition will not suffice to gather all, nor must the Botanist expect it.†

Besides these, among the dripping cavities, many beautiful Mosses spread their deep green velvet cushions, studded with urnlike fruit, among the most elegant of which occurred *Polytrichum urnigerum et alpinum*, Straight-leaved Apple-Moss (*Bartramia ithy-*

* The rare *Woodsia hyperborea* still grows sparingly upon the rocks of Clogwyn-y-Garnedd, the habitat recorded by RAY. With regard to the difference between this and *Woodsia Ilrensis*, Mr. WILSON remarks that he “never had the slightest difficulty in distinguishing these plants, the first by its ovate, the second by its oblong pinnae.”

† Other Snowdonian plants are *Silene acaulis*, *Cerastium latifolium*, *Dryas octopetala*, *Saxifraga nivalis*, *Carex rigida*, *Aira alpina*, *Poa alpina*, *Poa glauca* or *Parnelli*, *Festuca ovina* var. *vivipara*, *Hymenophyllum Tunbridgense*, and *H. Wilsoni*.

phylla), so confervoid in its aspect, and the delicate curious Filmy Fern *Hymenophyllum Wilsoni*. In our way back to Llanberis we visited the terrific black precipice called *Clogwyn Du Yr Arddu*, at whose base lies the *green lake*, so called from the colour of its waters, impregnated by the ore of a neighbouring copper mine. Descending this precipice at its most assailable point, we got to its base, looking back, not without awe, upon cracked and yawning masses above, that seemed ready to take a downward plunge without much notice. Here *Arabis hispida*, a plant noticed long ago by RAY, was still very abundant.*

Crossing the stream that supplies the waterfall of Caunant Mawr, the head of Cwm Brwynog presented a singular scene of desolation, of some interest to a geologist. Here lay, in chaotic confusion, a ruin of nature's own formation—vast slabs and massive fragments piled upon each other, as if Pandemonium had been upturned from its foundations, and riven by the thunderbolts of vengeance and destruction. And what was especially remarkable, all these masses had been, in the lapse of time, so corroded by rains and tempests, as to present the singular appearance of broken fluted cyclopean columns, more the work of art than the accident of slow brumal and imbral action. Amidst the examination of this labyrinth of stones, the gloom of evening came rapidly on, and it was verging towards the witching hour of night before I was “at ease at mine inn.”

Since the last mentioned excursion was made I have again ascended Snowdon, but took the difficult though

* The Broad-leaved Alpine Chickweed (*Cerastium latifolium*), also grows on these rocks, and the Spiderwort (*Lloydia* or *Anthericum serotinum*) has been recently gathered here.

more interesting route from Capel Cerig. Rain had fallen in the early morning, and water was in many places weeping over the slippery precipices. Llyn Llwdaw, on which I looked down, curiously tinted, seemed a sable abyss girdled with dull green, and beyond it towered the bare precipitous rocks of Crib Coch, while another little lake still higher was frowned into darkness by the cliffs about it. The peak of Snowdon was clear in front, and our party hurried on over the slippery ground; but ere we could reach its base, an enormous cloud descended, and the mist crept down enveloping every thing. A few openings into the scene below—like snatches of happiness midst clouds of sorrow—a few breaks through the spiteful fogs of destiny, portraying glittering lakes, bright vales, and cliffs and heights of noble sublimity when the curtain of cloud was for a moment lifted up—was all we could boast of that day as our prospect from Snowdon.* “Such is life” it may be truly said, nor have I been exempted from cloudy passages in my numerous mountain excursions—in fact, vaporous outpourings have scurvily treated me, and too often pitilessly overwhelmed me. The very last time I was beneath the brows of Snowdon, rain remorselessly poured upon my head, and pursued me from Llanberis

* Enveloping fog and dreary mist, is too often the experience of the disappointed wanderer on our British mountains. Mr. J. BACKHOUSE, jun., has described an excursion on Helvellyn in the *Phytologist*, where he says “when we reached the summit of the mountain we were completely enveloped with fog and cloud, so that we could see nothing but the upper part of the deep gorges and chasms in the precipitous cliffs with which the top of the mountain is faced. We therefore made our way against wind and rain down to Grisedale Tarn.” I refer to this excursion as recording the occurrence of some fine tufts of the rare *Cerastium alpinum* upon Striding Edge, found there by Mr. TATHAM. Striding Edge is said to be the best locality for plants upon Helvellyn.

to the very gates of Caernarvon. Yet I bore safely through the storm a splendid panicle of *Rubus macrophyllus* the finest I ever saw, which I gathered by the road side near the Lower Lake of Llanberis. Once only, I think, have the clouds favoured my look-outs by overwhelming me in their embraces. I had rambled from Barmouth to the romantic falls of Dolmynllyn, near Ganllwd, and amidst towering rocks and gleaming pattering waters, resting on beds of heath in lonely wilds, beautified by waving birches and waxen-berried mountain ashes, beneath which where Harebells and purple Wood-vetches (*Orobus sylvaticus*)* adorned the vocal shade, had passed a contemplative blissful day, when I prepared to return. Scarcely, however, was I two miles on my route back, when dark clouds hurried from the west, and poured upon me in an open space where no shelter was near. I hastened on to an old oak a short distance from the road, and there partially covered, determined to wait till the rain was over. But the storm increased in fury, poured down from the leaves in a hundred channels over me, and at length washed me out. I was compelled to hurry back to the Oakley Arms, which I had contemptuously left behind me an hour before, and there sought shelter. All night the tempest raved, and the streams ran in terrified gushes frightening me from my repose with their rushing cries. But morning shone in tranquil beauty, and every stream wild with glee was rattling along in foam and

* This beautiful Vetch (*Vicia Orobus* of some authors), grows in grassy spots near Pistill Cayne, and on rocks north of Barmouth. I have also gathered it in Caermarthenshire. It grows in an upright manner with hairy pinnate leaves, without tendrils, bearing many branches with unilateral racemes of pale purple flowers.

fury. Pistill Cayne at once leaped the cliff that oft it only veils, and the great Mawdach Fall hid all its rocks with a flood red with indignation, and sweeping as a hurricane. The waters were all alive that day, and the woods were stunned by crashing torrents.

In descending Snowdon to Llanberis, I paused at a bushy place in Cwm Brwynog, not far from the waterfall of Caunant Mawr, whose voice sounded loudly in the stillness of evening. Here was a fine thicket of brambles, among which I observed the lofty *Rubus pyramidalis* of Babington, whose long panicle has a very remarkable appearance. Many other curious brambles are observable about Llanberis, as *R. incurvatus*, Bab., *R. Lindleianus*, *R. affinis*, &c. ; and prostrate among stones, on the banks of the torrent, I observed the rare mountain bramble *R. lentiginosus*, which I have described in *Steele's Handbook of British Botany*. This is a very prickly bramble, but has a suberect habit and growth, though the numerous sharp serratures of the leaves distinguish it at sight from the usual forms of *R. plicatus* or *suberectus*, the latter of which is of common occurrence in Snowdonia, and it is more slender than those species. It seems to bear some relationship to *R. affinis*, but its elliptical leaflets and racemose panicle gives it a very different aspect to that bramble, and the panicle also is much more hairy. I would compare it among the suberect group to *R. Guntheri* in the glandulose, the flowers being in general small, and the whole plant weak even in the best developed specimens ; yet the stem is so prickly and the points of the prickles so sharp and attenuated, that it is one of the most lacerating among the *Rubi*. It seems a subalpine bramble,

but not well developed except in moist localities; as in dry woody ground at Capel Curig it grew very dwarf, with scarcely formed fruit; while on the stones of the ravine bordering the water below Caunant Mawr it spread about most luxuriantly, exhibiting large succulent black fruit.

Examining the bramble bushes in the deep shadowy ravine, I kept slowly advancing till the waterfall of Caunant Mawr was full in my view. After its first plunge it makes a sidelong leap into the deep ravine that enshrouds it, and is soon lost among embowering foliage. The front of the rocky chasm down which the waters gracefully leap was densely covered with a robe of verdant mosses, and the spangled stream as if in thoughtful mood fell with such little perturbation, that at a short distance it almost seemed like an embroidered picture set in green velvet. Laden with the specimens I had collected, I retraced my steps, and took the road to Dolbadran Castle.

A TRUCE TO WANDERING.

SNOWDON'S peak is lost in gloom;—
Now how bright the lighten'd room
To the sharpen'd senses speaks
After hours 'midst cloudy peaks,
Where the wind at ev'ry turn
Blusters over bog and burn,
Humid crag, and precipice;—
Rest we from such toilsome bliss.

Feast we now in castled halls
Safe away from foaming falls,
Ferny cliffs, and mossy peaks
Glowing in red sunset streaks;

Tho' we rest from wand'ring, still
Their images return at will,
Like clouds along a stormy sky,
With pictures of sublimity.

A truce to wand'ring—yet we see
Snowdonia's wide immensity,
As resting, half the pleasure rises
Within the mind, and still surprizes ;
Cloudy crags and deep ravines,
Misty lakes, and mountain scenes,
To the memory fondly cling,
And still urge on to wandering !

Truce, ye tempters, while we rest
Within Dolbadran's castled crest,
Yet thinking on the flow'rs that rise
On Garnedd's black declivities,
While clouds the riven crags immerse,
And raving winds the clouds disperse ;—
But now within Llanberis valley
Rest we till to-morrow's sally.

The morning sun again shall rouse
To scenes all meet for nature's vows,
To lakes within whose sanctity
O'ershadowing craggy mountains pry,
To roaring waterfalls, beside
Whose moistness ferns and mosses hide,
Diffusing golden brightness round,
And on to wild peaks vapour-bound.

These are our joys—smile ye that may,
Shrinking from Snowdon's vapours gray,
Clouds shall intrude upon *your* dream,
Life pour to you its troubled stream,
And rocks appear as dark as ours—
While we look out among the Flowers !
And purified in heart the while,
See bliss in every dark defile.

WILD FLOWERS OF OCTOBER.

(CONTINUED.)

CHAP. XXIV.

EXCURSION TO THE BOTANIC GARDEN OF SNOWDONIA—
PLANTS OF THE RAVINES AND ROCKS—FEARFUL LEDGE
ABOVE LLYN IDWAL—A CONTEMPLATIVE DAY ON THE
SEA SHORE—THE ASPECT OF UPLAND HEATHS LATE IN
THE YEAR—EYE-BRIGHT, JUNIPER, MOUNTAIN GROUND-
SEL, BETONY, &c. — RELICS OF WILD LOVELINESS —
AUTUMNAL MARITIME PLANTS—SEA-SIDE SKETCH—
SEARCH ON BREAEN DOWN FOR THE WHITE MOUNTAIN
CISTUS.

———“ I have known the herbs of the hills,
I seized their fair heads on high, as they waved by their secret streams.”
Ossian's Temora, Book viii.

———
“ Observe yon band pursue the sylvan stream :
Mounting among the cliffs, they pull the flower
Springing as soon as pulled, and mavelling, pry
Into its veins, and circulating blood,
And wondrous mimicry of higher life ;
Admire its colours, fragrance, gentle shape ;
And thence admire the God that made it so—
So simple, complex, and so beautiful.” POLLOCK.

As the “ Botanic garden of Snowdonia” still remained to be visited, I started for it the succeeding morning, with my little Welchman, and a visitor at Dolbadran Castle, who volunteered to aid the expedition. We

proceeded to the base of the Glyder Vawr, bearing up along the bed of a torrent that had made sad havoc with the entrails of the mountain. This course proved exceedingly delightful, and was fraught with ever varying interest. The torrent *here* spent itself in threads of silver over precipitous ledges of rock, *there* almost entirely lost amidst vast disrupted masses, allowed its bed to be traversed with impunity; again gathering its waters to one head, with chafing roar, it bounded athwart the declivities impatient of delay, whirling its eddies in deep pools among the stones. Now silent, now furious, now a brook and anon a cataract, its vagaries gave a continual zest to the ascent, especially where in some places it fell into cavities whose perpendicular sides must be scaled;—or tumbled in a hundred channels, where its vocal waters, washing the smooth stones, rendered them too slippery to bear the leaper in his passage from channel to channel. Hence many a slip, many a plunge, mid-leg deep in the mountain stream, and many a boisterous laugh. By the side of this torrent various highly beautiful and delicate flowers were located, particularly the Yellow Welch Poppy (*Meconopsis Cambrica*), still in full flower, and that fairy gem with flowers of stainless lustre, the Grass of Parnassus (*Parnassia palustris*).

It would take up too much space to dilate upon all the cryptogamous vegetation that exhibited itself abundantly in this ravine, especially where bushes garnished the edges of the rock; but a species of *Rivularia** had an extremely curious aspect on the

* I believe identical with *Rivularia calcarea* of HOOKER'S *British Flora*. The spongy crust of my specimens was very stiff, though not absolutely stony; when dry of a greyish green, and not reviving again if immersed. It appears calculated to exist for a long time.

face of a steep rock down which the torrent fell—resembling a number of cricket balls strung together, and saturated with water like sponges. In a shadowy recess, on the side of this waterfall, I gathered a fine specimen of *Marchantia hemisphærica*, as well as the green Socket-Lichen (*Solorina saccata*), the rare *Collema spongiosum*, and *Peltidea venosa*, all in fine fruit. Approaching now towards the head of the *cwm* we had been following up so long, our course was barred, and we climbed up the rocky side turning towards the crest of the mountain, but leaving the wild watery ravines with some reluctance. The Melancholy Thistle (*Cnicus heterophyllus*), with its silver leaves, occurred under a rock about midway up the Glyder, and the ground about the summit was most beautifully verdant with the prostrate stems of the Mountain Juniper (*Juniperus nana*), which was profusely in fruit. We now descended to a little lake called Llyn y Cwn, into which my botanical guide waded to obtain *Lobelia Dortmanna*, and the curious alpine water plants *Subularia aquatica* and *Isoetes lacustris*.

We next followed the stream issuing from the lake till it approached a black barrier of rocks, in whose front appeared a narrow fissure for the admission of the stream, and for it alone. Here it paused—murmured, curldled, foamed, and hurrying into the gulphs whose impending masses shadowed it on either side, it suddenly rushed on and flung itself shrieking into an obscurity the eye was unable to penetrate. This dark passage is the portal into the celebrated recess denominated *Tŵll Du*, literally the *black hole*, or vulgarly called “the Devil’s Kitchen.” Hitherto it had been a glorious autumnal day, but we were now

on the verge of Tartarus, and it was but natural to expect smoke and steam. They came on rapidly in the shape of a drivelling mist, which soon spread its wearisome sameness around, shrouding "the Devil's Kitchen," Llyn Cwn, and everything else in its reeking folds. This, for a season, obliged us to call a halt, and bivouac in the Satanic territory. Accordingly we sat down upon the loose blocks of stone that lay near the chasm before us, as if the Tartarean gates had been forced by an earthquake from their massive hinges and overthrown; and while waiting for the dispersion of the clouds about us, with appetites whetted by the mountain air, gladly called in requisition the not forgotten sandwiches and brandy-bottle, to reanimate our half exhausted limbs stiff with climbing. My little Welchman, however, kept jumping about among the crags, with his tin box strapped to his back, to my admiration and almost terror, and soon exhibited to me the delicate Spider-wort (*Anthericum serotinum*), while I myself had plucked the Sea Pink (*Statice armeria*), the soft-flowered Mountain Cat's-foot (*Antennaria dioica*), and the alpine Hawkweed (*Hieracium alpinum*).

Turning down the bed of a streamlet among the slippery rocks, we began to descend towards Cwm Idwal, and here it is, where the torrent I before mentioned breaks through the barrier of *Twl Du*, amidst a debacle of ruin, that Flora, as if to counterbalance the horrors of the place, robes the sable rocks with some of her choicest favourites. Here the Snowdon Pink, as it is called, or Moss Campion (*Silene acaulis*), dashes a broad gleam of rosy light upon the rock with its numerous pink flowers; here in immense profu-

sion the silver flowers of the Saxifrages (*S. hypnoides*, *stellaris*, *et cæspitosa*), cover the face of the dripping precipices; here the fairy purple Saxifrage (*Saxifraga oppositifolia*) abounds; the yellow Poppy blooms abundantly in the crevices, and the Rosewort (*Rhodiola rosea*) hangs its yellow cymes luxuriantly in spring far out of reach of the adventurous foot, or in autumn droops its flaccid leaves, rosy as the glowing hue of sunset.*

In this favourite spot, called the Botanic Garden of Snowdonia, some of the rarest Ferns reward the enterprise of the "Botanical Explorer," as *Asplenium septentrionale*, and *Hymenophyllum Wilsoni*. To find the very local *Polystichum Lonchitis*, as well as the almost eradicated *Woodsia*,† I ventured up the front of the mural rock. Midway up, one spot made us pause. It was a part where a huge intervening mass blockaded the way, with no possible advance but by a narrow gutter on its face fit only for a chamois. One slip from that narrow gutter would have been worse than a tumble from the Tarpeian rock, for it was a perpendicular plunge of 250 feet, without a break! In the craterian hollow below lay Llyn Idwal, black and without a ripple on its surface, solemn and terrific to look upon; clouds rolled above, and clouds rolled below, between the lake and the precipice where

* Other plants found in this vicinity are *Thalictrum alpinum*, *Draba incana*, *Galium boreale*, *Sedum rupestre*, *Rubus saxatilis*, *Cerastium alpinum*, *Saxifraga nivalis*, *Juncus triglumis*, and *Carex atrata*, the scorched aspect of the latter well fitting it for the "pots" as the hollows formed by the water are termed in the "Devil's Kitchen."

† I am glad to understand that *Woodsia Ilvensis* has lately re-appeared in unusual abundance at its old station, a rock above Llyn-y-Cwn. About a hundred plants were said to be visible in 1849, but inaccessible, and not to be gathered without the aid of a ladder.

we stood. At this point my nerves actually quailed at the prospect, and I felt I could move no farther. But my little guide soon gave me a recipe for my nervousness, occasioned by my looking *down* into the cloudy gulph beneath. "Look up," said he, "creep close to the rock, and there is no danger." I still hesitated, till measuring the distance with my eye, and at last forming my resolve, I *closed* my eyes on the fearful view, *felt* my way with cautious steps, crossed the dreaded ledge in safety, and gathered my plant! After that all was lightsome to the summit of the cliff, and thence over the flank of the Glyder by Llyn Cwn, and down into the vale of Llanberis, to a glorious regale at the Dolbadran Castle.*

But to the "Botanical Explorer," as well as to every mind awake to the love of the bold and the beautiful, a contemplative day on the sea-shore, in the autumnal season, affords a mental banquet of the highest order; and, of necessity, the calm, delicious tranquility that pervades the mind, is not undivested of a dash of melancholy, from the feeling that the glories before the eye will soon be succeeded by the fierce uproar of the brumal tempest. As first impressions are always the most vivid, I will here extract a short account I penned some years ago of a passing visit to the pretty village of Budleigh Salterton, Devonshire, because here I passed my *first* solitary day in the contemplation of the restless ocean—a day that still rises in my mind a chrystal gem, amidst the dull, sad, and opaque *rejectamenta* of memory.

It was most lovely autumnal weather, with a kind

* The Inn of that name, which has every comfortable appliance a Botanical Explorer can desire, and not the ruined tower on the side of Llanberis lake.

of dreaminess upon surrounding nature. The day was not cloudy, and yet the sun did not shine forth in his fullest effulgence, but tempered his radiance with a thin gauzy veil, which occasionally admitted a brilliant gleam over the landscape, while ever and anon, though without a breeze, the yellow leaves of the elms fell eddying through the air. With renovated spirits I advanced on the road to Salterton, and beautiful were the prospects that occasionally presented themselves—Exmouth and the sea when I had mounted the hill beyond the town—a lovely expanse of woody country, with a bare, heathy, gravelly hill in front, near Salterton, and beech trees (oh, the beautiful beechen tree) in the richest diversity of gold and auburn. Salterton is a pleasantly situated village, close to a fine pebbly beach, expanding for about half a mile from a fine semi-circular sweep of red sandcliffs that stretch close up to the village on the right, to where the little river Otter (*Coleridge's* Otter) makes its *embouchure* into the sea on the left. An isolated mass also rises between, where the beautiful Sea Pink (*Statice armeria*) was displaying its rosy loveliness in great profusion. From the base of this cliff extends a fine beach composed of large pebbles, forming a noble mound or breakwater, at the base of which the calm sea was faintly gurgling; but what must be the clash of the 'proud waves' here in rough weather, when

———“settling on the sea the surges sweep,
Raise liquid mountains and disclose the deep;
South, east, and west, with mix'd confusion roar,
And roll the foaming billows to the shore.”*

* *Dryden's Virgil.*

I proceeded slowly along the pebbly barrier, though with some difficulty, as the smooth stones were displaced, and rolled about at each footstep. On one side appeared a smooth shallow pool, where a flock of Sandpipers were sporting, and immediately in front rose a proud, lofty mass of red sandstone, the base of which was washed by the Otter, which at this point rushed with a swift current over the pebbles into the sea, dividing into two branches, and forming a small pebbly island at the ebb. This island I contrived to reach by striding along the slippery stones, and occasionally flouncing in the water, and was amply repaid by the scene of desolation presented to my view. For some distance along the shore the rock had been shivered to pieces, and lay on the beach in vast broad slabs, presenting an awful geological spectacle. These masses of sandstone are evidently covered by the tide, which dashes violently against the cliffs, forming cavities and grotesque shapes, and the friable constituents of the sandstone thus mutilated by the waves, and acted upon in winter, probably by the frosts, and at all times by the atmosphere, necessarily causes huge masses of the rock deprived of support from below, or detached from above, to thunder down upon the beach, leaving a singular scene of ruin and desolation. These fragments are profusely covered with olive-green *fuci*, and form a favourite resting place for sea-birds. An old fisherman put me in his crazy boat from the island across the other branch of the Otter, and botanizing about the sandstone cliff, I found some fine specimens of *Arenaria marina* in full flower, and the beautiful Sea Lavender (*Statice limonium*) on the ledges of the rock. Here, too, were

some most luxuriant plants of the *Iris fœtidissima* in seed, which seems to delight in a maritime locality, and I have scarcely seen it more abundant than here and in the Isle of Wight. I now toiled to the summit of the cliffs, and sitting down at my ease, while munching some biscuits, gazed delighted on the lovely expanse of ocean stretched before me. On the right, with a spread of pebbly beach between, was the pretty sequestered village of Salterton, beyond which a majestic range of red cliffs extended in a semi-circular direction far away, cliff beyond cliff receding in lengthened succession, till the far point of Berry Head, in Torbay, dimly met the view. Above Salterton was a lovely wooded inland landscape, bounded by hills and groves, and the blue outline of the heights of Dartmoor in the far distance. To the left, cliffs of a still sublimer character presented themselves, loftier and grander, massive, towering, and threatening ;—beyond which, in far perspective, the white cliffs and chalky ranges of the coast of Dorset glittered in the declining rays of the sun. But, in front, stretched that world of wonders in itself—the Ocean ! not, indeed, in its wild, awful, tempestuous character—but fair, smooth, and calm, as when it tempted the shepherd in the fable, to sell his flocks, equip the winged vessel, and traffic in merchandize. So fair, so beautiful it seemed, spreading in its loveliness to the verge of the horizon, while not a vagrant sail disturbed the solemn solitude ! At intervals, only, a Cormorant would wing along with spreading pinions close to the water, till his dark form was lost behind the intervening cliff. I approached close to the verge, but cautiously, and looked down ; it was too awful to venture the view

again except on bended knee ;—the rock was friable, and the scene of ruin below told but too plainly what must be the inevitable result of a single slip. While gazing on the scene, a solitary Sand Martin (*Hirundo riparia*) sprung from a cavity in the rock, and fluttered in the sunbeams, resting every now and then upon a little shelf of the sandstone. Poor fellow ! he was left behind when his parents and brethren took their departure over the mighty deep to warmer climes, and, like the domesticated pet of a deserted cottage, whose inmates have removed far away, he moved querulously about, as if astonished and confounded at the unwonted state of destitution in which he was thus left. In wandering on to a succeeding range of cliff, and looking down suddenly through a break upon the shore below, I perceived a large flock of Sea-Gulls seated, in all their white purity, upon a large fragment of sandstone ; but they quickly started off, barking and howling like a pack of hounds, till the eye lost sight of them, as far off they flounced down upon the water,—but their singular bark or melancholy *low*, long resounded, at intervals, from the wide ocean, alone disturbing the awful, soothing, renovating silence of the scene.

The morning scenery of October among upland heaths is often of an exciting delicious character, combined with the last blowing plants of the year, every twig sparkling with translucent dew-drops lighted up with iridescent hues as the rising sun's rays fall upon them, while the wild woodbine has a brood of later pink-hued blossoms that adds fragrance to the air still saturated with moisture. The mountain ash glows with the load of its coral ripened

berries, the wild Bryony (*Tamus communis*), shows its crowded wax-like fruit twining among shrubs high in air, and the clustered sloes or *sloes* contrast their blue mealiness with the deep sable of the blackberries bending down oppressed with their ripened weight. The reeking turf is brightened with the purple and yellow blossoms of a whole army of little Eyebrights (*Euphrasia officinalis*), that in such an airy situation might well be imagined to sharpen the eyesight, or at least to open the mental vision to contemplative delight. A few bell-flowers, gems of ethereal blue, yet cling to the scene like reflections of past delights—but the ling brown and faded, stretches far and wide in sulky continuity—yet even that is burnished here and there with the sparkling beaded beauty-giving vapour, bright as virtue in the humblest garb. The lesser gorse is yet gorgeous in gold, contrasting with the brown *faded* or auburn *fading* brake, gradually bending its broad fronds to the ground, while tufts of the grayish-green Juniper rise at intervals, like hermits in hoary gowns, and give almost a sacred character to the scene, especially where a cloistered wood extends its brown umbrage on the margin of the heath, with scattered broken mouldy pales upon its bounds covered with aged silver *lichens* and green *leprariæ*, the collected *fur* of time and rot. The Mountain Groundsel (*Senecio sylvaticus*) strews the ground abundantly here, its numerous flowers with their inconspicuous revolute rays making up for their minuteness in giving a feature to the bank; and rising about almost every old stump on the edge of the wood, the purple flowered Betony (*Betonica officinalis*),* an

* The name Betony is said to be derived from *Bentonic*, a Celtic word,

old rustic favourite, stands pretty among deep green tufts of the goldilocks moss. Ragworts are become flossy with their pappi, which every zephyr loosens to fly off with, but the latest Hawkweed (*Hieracium umbellatum*) has yet a few golden florets in store, and the tall purple-spiked Melic-grass (*Molinia cærulea*), and the handsome Wood-reed (*Calamagrostis Epigejos*), now in full perfection, continue to give a feature of botanical life to sylvan sequestered spots. Within the wood enormous tall culms of the tufted Hair-grass (*Aira cæspitosa*) are seen in a pallid dead state, and the rambler turns from the overgrown weediness that has obscured all path—like hankering wretched burthens on the mind—and turns away once again to the gay coloured heath, while the trill of the robin sounds a plaintive requiem to the floral season.

As the year slowly dies away, every object on which a sunbeam rests is viewed with pleasure, and an old stump robed in ivy, a drooping thyrsus of flowering bramble, the wild Clematis clasping the tall bushes, and with its feathery seeds seeming like a snow-drift, a fragrant “queen of the meadows” flowering later than usual, or even a humble Geranium, with shining red petals, blooming to the last—all seem like scat-

meaning good for the head, and if so this herb must have had long standing as a crowning remedy. In the old English medical MS. of the fourteenth century, now in the Royal Library of Stockholm, printed in vol. xxx. of the *Archæologia*, and which I have before quoted, higher powers are ascribed to it than mere head work—as it is said

“Who so Betonye on him bere,

From wykked speryts it wyll hym were.” (or keep.)

A very good thing could its powers but be still kept in action. Indeed it *was* was once good for every thing—

“For all sekness in every stonde, (hour,)

Betonye is good while it may be fonde.” (met with.)

Doubtless such simple and easily obtained remedies were not without efficacy when believed in.

tered pages of poetry. Even in this contemplation of the little detached objects that meet the eye at every turn, Nature may be well enjoyed. I never ramble down a winding shady tree-embowered lane, or even look into a ditch or hollow by the road side, but I see something worthy of observation—at least a *bead* of beauty, that deserves to be taken up and preserved upon the string of recollection.

In favourable, and especially sheltered maritime localities, many plants will continue in blossom to a very late period of the year; and hence the Botanical Explorator need never despair of improving a fine day even to the very verge of Christmas itself.

Winter begins to threaten, dashes a gust of whirling leaves about our heads, and as we approach the margin of the ocean, its vast extent oscillates with yeasty waves far as the eye can reach. But along the shore, as we wind about from marsh to sand-hill and to cliff, how many spots of beauty yet remain to charm the exploring eye. The Sea Starwort (*Aster Tripolium*) flowers still, showing its pale purple rays and yellow eye; Sea Campion (*Silene maritima*) yet trails its mealy stems, with silver petals like frills beyond its inflated calyces; and little shrubberies of Sea Wormwood (*Artemisia maritima*), white and downy, offer not an inelegant spectacle. On the coast of Wales, scenting the morning on the blowing sands of Barmouth, the little green marshy lawns on its confines fill the air with mild fragrance, well known to the nose of the botanist, from an abundance of Lady's Tresses (*Neottia spiralis*), while hosts of autumnal Gentian (*Gentiana amarella*) spangle the ground with their branched heads of deep purple flowers. The

dwarf Centauries, with numerous red funnel-shaped blossoms, well contrast with the Gentians, and lowlier still with purple rays and full-blown seed of down, the little Blue Fleabane (*Erigeron acris*). Proudly seated upon the rifted sands about it, among stiff glaucous sea lyme grass, the beautiful Sea Holly (*Eryngium maritimum*) almost dares the tempest with its armed leaves with coursing veins of azure, vying with the fairest hand. Here, too, the Dewberry creeps with bloomy berries all over the sand hills, amidst stiff prickly shrubs of red dwarf roses (*Rosa spinosissima*), that display large gooseberry-like fruit; and in such places I have gathered softly tomentose the Great Sea Stock (*Matthiola sinuata*), both in flower and fruit, half covered with the blinding sand pouring along the wind-swept shore. Masses of green verdigris-like Mercury (*Mercurialis annua*) fringe the margin of the sands and the beach.

In wild lonely spots, in some parts of the coast of Pembrokeshire and Cornwall, the wild Asparagus (*A. officinalis*), offers a pretty spectacle in fruit—though stumbled over, perhaps, ere it can be found, as the fierce sea breeze prostrates it to earth, making every bush and tree shrink also from the sea-girt shore.

One tree, however, at least, the Tamarisk, seems to rejoice in the vicinity of the raving ocean, blushing into flower with the most elegant varying spikes even as late as October, and a pleasing object with its minute evergreen leaves upon the coast at all times. I have observed the Tamarisk (*Tamarix Anglica*), in some plenty about the vicinity of Hastings, Sussex, and it is seen at the Lizard, in Cornwall, but is an introduced decoration to the scene.

As I must speedily have to take leave of phanerogamous vegetation, I shall here record a visit I paid to the habitat of the rare *Helianthemum polifolium*, or white Mountain Rock-rose. I happened to be at Weston-super-mare, in Somersetshire, in the middle of November, 1841, after winter had set in somewhat fiercely; but a fine gleam of sunshine tempting me down to the beach, I thought it possible that I should be able to find my way to Brean Down, and allured by the prospect, bent my steps towards it, scarcely expecting, however, to find a specimen left of the plant in question, unless, perchance, in seed. I walked down to the beach, where all was silent and deserted—the tide was out, and the distant roar of ocean sounded but faintly on the ear. In front lay a wide expanse of wet sand: in mid distance the rocky promontory of Brean Down and the islands of the Steep and Flat Holmes; and beyond there lay a level sea, bright in the subdued light that thin yet dusky clouds permitted, that veiled the sun's orb from view. The scene was calm, fine, but dreamy, and with the leaden tints of twilight. Left of Brean Down a whole legion of descending rays burst from the clouds, partially intercepting the line of distant hills, but occasionally lighting up their sides. After a long walk upon the moist shining sands, I came to the verge of the little river Axe, which I found cut off my progress to the rocky peninsula, and, as there was no bridge, I had to engage a boatman to row me down the river to the rock, and, of course, await my return. I was soon scrambling up a precipice of carboniferous limestone, of which the peninsula of Brean Down consists, running far out into the Severn sea, and on so straight a line with

the Steep Holmes, that I should judge they were formerly connected, and, perhaps, disjoined by the dashing waves at a far distant period. A glorious view of Weston Bay, the expansive estuary of the Severn, and its guardian islets, burst upon my view from the summit of the promontory, which is covered with a fine green turf,—invaded now, however, from its virgin state, by various small allotments let to cottagers for potatoes, &c. On the south side is an almost perpendicular precipice, and the peninsula, narrowing in places, subdivides itself into three portions. I now commenced my search along the southern ledge for the *Cistus*,* but, for some time, in vain; nor till arriving at the end of the first division of the down did I find a single plant, though quantities of the *Iris fetidissima*, with open capsules appeared, displaying a rich array of orange-coloured seeds.† At last a single scrubby withered *Cistus* appeared on the cliff, and thus assured I was on the right scent, I pressed on—more appeared, yet, still, all withered. But as I entered upon the second portion of the promontory, where the rock forms a fine slope towards a little bay below, I was rejoiced to notice numerous plants quite green and flourishing;—then I saw some with perfect fruit; and, beyond all hope, a beauteous group lay on the hill side, still bending with unexpanded white petals, tipped with rose. It was a lovely sight, and one I may, probably, never behold again, since, except at Babbicombe rocks, in Devonshire, this rare and beautiful flower is found no where else in

* *Cistus* of LINNÆUS, *Helianthemum* of De CANDOLLE.

† On Brean Down grows also the pretty dwarf silvery *Carex*, *C. clandestina*, which has been only found in Britain here, on St. Vincent's rocks, the downs near Bayford, and on Salisbury Plain, Wiltshire.

Britain, and, according to Sir JAMES SMITH, in the world! I seized my prize, I fear, with a rapacity worthy of "gloomy DIS" himself, when he carried off the "fairer flower" of Sicily; but, for the satisfaction of my brother botanists, I beg to say, I left a store of plants behind for the stock of another season, and many had evidently spread their seeds around long before my arrival.

Many a delightful capture of this kind has it been my lot to obtain, though, frequently, from weather or accident, proving "a fearful joy;" nor, on the present occasion, did I entirely escape unscathed. I had lingered so long upon the rocky promontory, wandering to its remotest end, that the shades of evening had gathered round, and I began to fear for the fidelity of my boatman, for by this time the tide had set in, and so filled the little estuary of the Axe, that it appeared like a broad lake. For some time, when I got to my starting place, I could see nothing but a boat got loose from its moorings, which, imagining to be mine, I began to calculate upon a long round-about toilsome pilgrimage back to my quarters; but, after some loud shouting, Charon fortunately appeared, having removed his boat farther up the stream, and picked up an auxiliary in the shape of a Westonian, who begged a passage in the boat. So away we scudded with the tide, nor with that alone behind us, for in its wake a driving rain burst upon our devoted heads. It was now dark, wind and rain rendered obscurity doubly obscure, and I should certainly have got into some misadventure, had not the Westonian, whom I had accommodated with a passage, offered the aid of his local knowledge to guide me over the sands. Amidst

the dashing of waves, and the beating of rain, I at last arrived wet and weary, in view of the glimmering lights of the town, just as the moon, dim and hazy, as seen through the watery vapours, faintly appeared in the brightening east.

WILD FLOWERS OF OCTOBER.

(CONTINUED.)

CHAP. XXV.

A LOOK OUT UPON THE SERE AND YELLOW LEAF—REFLECTIONS ON A FOGGY MORNING — COLOURS ASSUMED BY THE FOLIAGE OF FOREST TREES — CHEMICAL SUGGESTIONS ON THIS PHENOMENON — MOURNFUL ASPECT OF NATURE—SUPERSTITIONS APPERTAINING TO GROVES AND TREES—FADING PICTURE IN RURAL LANES—COLOURED BERRIES OF THE HEDGES — NUTTING AND BOTANICAL STRUCTURE OF THE NUT — THICKET BEAUTIES AND LOVELY ASPECT OF THE WOOD HORSETAIL — BRAMBLE HUNTING—NOTICES OF THE IVY AND ARBUTUS.

“ Now shift the scene to moonlight glade,
Where dapper elves beneath the shade
Of oak or elm, their revels keep
What time we plodding mortals sleep.
Next, lead me to some haunted grove,
Such as the Fauns and Dryads love ;
Or seat me by some brook, whose swell
Makes music like a Naiad’s shell :
Then touch the tree ’neath which I lie,
Till it uncloseth to ear and eye
Whate’er it may have heard or seen
Since Spring first cloth’d its stems with green.”

SPIRIT OF THE WOODS.

WE are now literally touched by the “sere and yellow leaf,” vegetation is every where fading around us, and the woods of October stand arrayed in unwonted yet melancholy splendour. The mind contemplates this

brilliant "pomp of woods" with feelings akin to those that would arise at the sight of a well appointed army glittering with gay uniforms, feathers, and standards—just advancing to their final debouche upon the field of battle. So this gorgeous array of shrubbery, grove, and forest, is the last glory of the waning year—the breath of winter has already touched the foliage with talismanic power, and the transcient colours that on every side now gild the landscape, are only the deceptive tranquil prelude to the desolation that sternly stalks behind. But though the prescient philosopher ever predicating results from apparent phenomena, troubles himself with the coming events whose precursing shadow he espies, there is no necessity for a "Botanical Explorator" to be in advance of the season, and thus be overwhelmed in the whirlwinds and storms of Winter before they arise; sufficient to him to seize the day as it actually exhibits itself, and depict the beauties of nature as they appear—all smiles—in the balmy transcient hours that beam like sunset clouds in the too short intervals of autumnal pourings. For, alas, "Amalthea's horn," once honoured as the horn of plenty, now too often pours upon the meads and orchards pluvial treasures, upon which the eye gazes mournfully as they fall, and the wandering foot seeks in vain for a dry spot on which to stand and muse.

Rain! rain! rain!—the falling deluge echoed throughout the day in the shrubbery; it pattered upon the leaves, and sounded mournfully, mixed with the owl's "*too whoo*," as I raised my head from my pillow dubiously amidst the gloom of midnight. But look out upon the still morning! All is hushed as if

by the touch of an enchanter's wand: the scowling tempest has exhausted itself—the wayward wailing child is cradled to rest. Yet hush! for a sound may awaken it again to increased squalling and commotion—let us then enjoy the momentary respite. A reeking fog now rests its grey folds in dull sameness over the vast surface of silent nature. It conceals (as a moralist might say) beneath that damp but opaque curtain, crimes never to be revealed in this world; cares, sighs, anguish, that are *well* concealed—for they would be known in vain to the heartless throng—what strugglings, what throbs, mental and bodily, what hopes, what aspirations, are not hid beneath that sea of vapour! But all must go on—for, as Miss EDGEWORTH says, “amidst the most interesting scenes dinner comes on the table as usual,”—so moralizing is useless, the fog rises in mid air, the rooks vociferate in cawing chorus as they journey through it to breakfast;—it invests the solemn depth of parti-coloured woods as it stalks gloomily along, then encamps along some ledge of limestone heights finely relieved upon a sky of cloudless azure, and at last is lost by rapid movements through a rocky pass beyond which its misty squadrons drive away from view.

The fall of the leaf, the different hues assumed by the foliage of various trees, and the order in which they are disrobed, is a subject of curious observation, and it may not be uninteresting to pay some attention thereto, especially as at this period the *Flora conspicua* pauses in its career—the garden has scarcely any new glories to produce, and although a few impatient plants hastily and foolishly make an effort to antedate the spring, like some young misses “coming out” too

soon—it is but a few that make an effort to effect this onward but premature movement.* Our contemplations, then must be directed to the wild interior of the forest glade, seated on some rustic seat, as the sun pours its glories from an unclouded sky, and lights up the silent tranquil noon of October with reflected light that burns upon the withering foliage as if with pyrotechnic fire—and all is still; the frolicsome squirrel sits with curled-up tail upon the oaken bough, the hare crouches moveless in her bracken form, and amidst the reeds and tall bulrushes, the black coot dreams on the mirrored pond, on whose glazed surface not a circlet stirs. Now mark we the varied hues that glow around us. In the following list I have enumerated the characteristic tints that usually mark the leaves of the trees named, before they drop off.

* Scarcely an autumn passes, however, without an attentive observer perceiving some tree or shrub, which has put forth a *second* crop of flowers, from which of course fruit would arise, if “a killing frost” did not arrest their progress. Even wild flowers are often prolific in this way, as if capriciously throwing their beauties into “old Hiem’s lap;” but these anomalies may be oftener noticed in cultivated plants. From such sportive freaks of nature, permanent varieties have arisen, endowed with the properties of their progenitor, and I should account in this way for the “Holy Thorn” of Glastonbury, Caldenham Oak, in the New Forest, and other famous *prodromic* exhibitors of flowers or foliage, of course enlisted into the legendary credulity of the day. A superstitious relic of this kind now exists in a garden close to the west end of the cathedral at Gloucester, in the shape of an Apple tree, commonly called by the inhabitants of the fair city “*the forbidden fruit!*”—very probably a legacy from the monks of the former abbey. The fruit of this tree is never gathered, nor does it fall off like the generality of apple trees, remaining till after the flowering of the following year, so that flowers and fruit appear on the tree together, as I can witness. The superstition respecting the tree is, that it is the offspring of Eve’s too celebrated apple, and that death or some direful calamity would inevitably befall the daring individual that plucked this “forbidden fruit.” It is certainly curious to see the fruit clustering upon the tree late in the spring, and to witness the respect in which it seems to be held, though its beauty is not very remarkable. Some fanciful monk, I should imagine, first noticed and nursed this odd variety of the apple.

LIME	Pale orange.
MAPLE	Light yellow.
WILD CHERRY....	Bright red.
POPLAR	Yellow, or Citron.
BIRCH.....	Straw colour.
ELM.....	Yellow and brown.
PEAR	Frequently vivid crimson.
HORSE-CHESNUT ..	Orange and ferruginous.
DOG-WOOD.....	Sanguine, changing to vinaceous.
BEECH.....	Auburn to deep umber.
LARCH.....	..Dull orange.
SPINDLE-TREE	Crimson lake.
WYTCHE HAZLE	Brownish yellow.
COMMON HAZLE ...	Yellowish.*
GUELDER ROSE ...	Deep red or pink.

But besides this, many denizens of the grove present such variable tints that no one in particular can be fixed upon as the general component of the foliage; thus the sovereign Oak either exhibits a changing vesture of light green and yellow, or holds his green cloak firmly below his bald antlered head long after the leaves of every other deciduous tree have fallen, finally putting on a sober russet hue, which remains till late in the spring. The “wannish gray” of the Willow is scarcely altered till just before the leaves drop, subsiding into a pallid primrose tint; and the Alder keeps its foliage green to the last. The sycamore has been well described by COWPER as

———— “Capricious in attire;

Now green, now tawny, and, ere autumn yet

Has chang’d the woods, in *scarlet* honours bright.”

* Late in the autumn, however, if the foliage continues on, taking a dull orange or reddish hue, as noticed by CLARE in a Sonnet inscribed to Autumn.—

“Where o’er broad hazel-leaves thy pencil mellow,
Red as the glow that morning’s opening warms,
 And ash or maple ’neath thy colour yellows,
 Robbing some sunbeam of its setting charms.”

The Lime is almost always denuded the first, and the Ash follows—a sharp frost often bringing down its entire foliage at one fall, and hence its sensitiveness prevents the exhibition of those gorgeous hues borne by other trees, the leaves (either green or yellow) very often curling up as if scorched. At a later period, however, the “keys,” or seed-vessels of the ash, which remain till spring, give a characteristic aspect to the individuals that bear them. The autumnal splendour of every other tree fades before that of the beech, which continues the longest of all, and under particular circumstances is of the most brilliant description. This arises from its lucid leaves, which vary in hue from auburn to gold-colour and umber, reflecting back the level rays of the descending sun, and thus burning with pre-eminent lustre, like a sudden illumination. Blazing characters irradiate the grove wherever the beech presents, in spectral pomp, its vivid outline; and if a passing raincloud, shrouding for a moment the tree tops, bears upon its purple breast the glowing Iris, with one limb intermingled with the golden foliage, the splendid effect will long rest upon the memory of the spectator.

Several chemists have amused themselves in attempting to account for the colours produced in autumnal foliage, but no precise result of importance seems to have been arrived at. BERZELIUS having found a peculiar colouring matter in *red* fruits, suggests that this must be common to the fruit and leaves, as trees with red fruit have also red leaves in autumn. This appears merely fanciful, for though certain trees with red fruit have also red leaves, all trees with red leaves have not red fruit, as may be

readily observable in the horse-chestnut and pear, the latter of which, though the fruit is mostly green, has often foliage of the most resplendent crimson or carmine. Again, the pallid yellow of the fading leaves of the Laurel has surely nothing to do with its black fruit; and the foliage of the vine assumes the same faint purple hue whether the fruit be black, purple, or green. *MACAIRE PRINSEP, after various experiments, came to the conclusion that the foliage in autumn ceased to evolve oxygen, which it usually does in the daytime, when in a healthy state, but that it received that gas from the air, by which an acid was formed, tinging the foliage at first yellow and then red. No doubt that when the action of cold destroys the vital functions of the leaf, it must of necessity cease to evolve oxygen, but being thus in fact *dead*, it can scarcely receive that vivifying agent within its structure; but, as after falling, we perceive the leaves stretched "dry and withered on the ground," in one uniform brown tint, perhaps the oxygen may act externally upon the epidermis to impart that hue to the disrobing frondage. But whatever may be the primary influence that affects the change of colour in the leaf, its *fall* is the mechanical effect of gravity upon a dead substance, now in fact isolated entirely from the vitality of the compound polypoid structure to which it is still attached. Thus in the stillest autumnal morn, when the woods curtained in vapour, seem to have settled into lethargic torpor, and the lightest thistle-down pants for flight in vain—as the first burst of sunlight streams through the reeking mist, scattering jewelled colours upon a myriad host of dewdrops and concentric studded webs, leaf after leaf drops

eddy to the ground, this intermitting *pit-pat* alone ominously interrupting the profound silence that invests the forest glades.

————— “ For now the leaf
Incessant rustles from the mountain grove ;
Oft startling such, as studious, walk below,
And slowly circles waving through the air.” *

The leaf-strewn walk is a peculiar feature of autumnal scenery, and though the effect of the fallen russet frondage is exceedingly pleasing to the eye, and the rustling sound of dropping foliage falls with lulling cadence upon the ear, yet an unaccountable melancholy insensibly takes possession of the mind as it contemplates the sensible image of withered hopes and high-born expectations—flattering, once, perhaps, as the green buds of April, now blighted and prostrate as the humid leaves that rest in sepulchral state beneath each skeleton tree. It may be, too, that grief is awakened at the remembrance of some for ever lost to us, who in these very shades exchanged their thoughts with ours, and trod where we shall never hear their voices again.

————— “ The landscape is lovely no more,
I mourn—but ye wood-lands I mourn not for you,
For morn is returning your tints to restore,
Endued with fresh fragrance, and glittering with dew.
Nor yet for the ravage of Winter I mourn,
Kind nature the embryo blossom will save ;—
But when shall Spring visit the mouldering urn,
Or when shall day dawn on the night of the grave ?” *

Sombre as this train of reflection may seem, it accords with the phenomena of the dying year, for as in Spring every feeling is legitimately buoyant with

* THOMSON.

† BEATTIE.

mirth and joy, so in Autumn grief and melancholy must have their vent. Indeed, at all times, the deep shade of "twilight groves," whether immersed in the dreamy listlessness of noon, or considered as fairy haunts under the phantasmic splendours of a full moon, have ever nursed grave, romantic, and even superstitious feelings in the human breast. In the sacred groves of Gaul and Britain the mystic rites of Druidism were celebrated; among the polished Greeks and Romans every temple had its consecrated wood; and "holy trees" have been venerated in every age, and esteemed as oracular.* Indeed, a huge old tree, or a grove of trees, anterior to all our recollections, seems in itself to inspire respect and reverence, while the adjuncts that encompass it—shade, gloom, solitude, and silence, all conspire to convert this incipient reverence into devotional awe. As WALLER has pleasingly observed—

"In such green palaces the first kings reign'd,
Slept in their shades, and angels entertain'd;
With such old counsellors they did advise,
And by frequenting sacred groves, grew wise."

* The oaks of Dodona were especially honoured for their supposed prophetic powers, and are several times alluded to by HOMER; hence OVID says— "Quercus, oracula prima."

Even *timber* from Dodonæan oaks retained the prescient gift. At last almost every tree was consecrated to some idol, or even itself worshipped. TACITUS says that the ancient Germans called trees by the *names of their gods*. Tree-adoration continued to a very late period even in Europe, for in DALYELL'S *Superstitions of Scotland*, he quotes a MS. description of the Isle of Skye, in the Advocate's Library at Edinburgh, where it is stated that "about two hundred years ago, there was, in the island, a sanctified lake surrounded by a fair wood, which *none presumes to cut*; and whoever ventured sacrilegiously to invade it, either sickened at the moment, or were visited afterwards by some signal inconvenience, even if sundering the smallest branch." A recent traveller in Italy mentions the whole neighbourhood of Bolsena as "covered with rotting trunks of trees," the fact being that the Chestnut woods there are considered sacred by the people from their antiquity, and are *never cut*. "The trees have ripened, and fallen, and rotted thus for centuries."—*Willis*.

So PLINY states that "groves were of old the temples of the gods, and after that simple but ancient custom, men at this day consecrate the fairest and goodliest trees to some deity or other; nor do we more adore our glittering shrines of gold and ivory, than *the groves* in which, with a profound and awful silence, we worship them." Faunus, however, came to be considered the tutelary deity of woods, while each individual tree was considered to be the habitation of a Dryad, or sylvan nymph, who sometimes miraculously spoke, and generally indicated her displeasure if her habitation was invaded by the sacrilegious axe, though she had power to remove and change her dendroidal habitation. EVELYN, in his *Sylva*, published in 1706, in reference to this, remarks, in his quaint humorous style, that "as to those nymphs, grieving to be dispossessed of their ancient habitations, the fall of a very aged oak, giving a crack like thunder, has been often heard at many miles distance: nor do I at any time hear the *groans*, without some emotion and pity!"

The Arcadians went so far in their devotion to trees, that they professed to be actually descended from the venerable oaks whose extent of boughs shadowed over their hills; so that it is hardly to be wondered at that more savage barbarians, awed by the altitude, strength, majesty, and apparent eternity of duration of their vast primeval trees, as well as witnesses of their utility, should ascribe to them supernatural and divine powers, and view their hoary mouldy trunks and tortuous mossy boughs from a distance with the chilly trembling of superstition. Besides the oracular powers ascribed to consecrated trees around the fanes

of gods and goddesses, and the mystic responses of the *Dryades*, the foliage itself, especially that of the *Laurus* and *Agnus Castus*, when lain upon in the stillness of night, was thought to propitiate the presence of the deity, facilitate the shadowed exhibition of prophetic vision, and inspire the soul to pour out, in frantic furor, those Pythonic verses, supposed to be dictated by the indwelling deity.

“ But now, alas ! the woods
Have all forgotten the immortal voices—
Apollo, with blithe Pan, no more rejoices
In viny solitudes ;
And poets only hear, amid the trees,
Glad birds and wandering bees.”

Like the foam that awakened into existence by the frantic leap of the mountain-torrent, long remains whirling on the surface of the dark water, as if unable or unwilling to pass on with the under current, till a pause in the supply at once leaves it unrecruited to dissipate in air ; so the products of idolatry and superstition have kept their holds, age after age, in the deep fastnesses of the woods, till the ignorance that gave them birth, and the cunning that kept them up, failing any longer to sustain them, they have passed away from the scene, evanescent as the exhaling spray at the foot of the stilled waterfall.

Yet one more glance at the fading picture ere dying day robes in mist the mountains, and spreads her white vapours insensibly over the meadows and woods.

A yellow gleam from the west faintly illumines the pallid foliage beneath a gloomy sky, like a vast painted cathedral window in a black city. The distant horizon fades into the dim and obscure, rivers and lakes frown

dark as the skies, many trees are stripped, hedges are becoming bare, and tall dry umbelliferous plants stand stiff in scrawky deadness. Every thing denotes the waning year, the death of Flora, and the advent of stern frowning winter—

“The spring is gone, the summer beauty wanes,
Like setting sunbeams in their last decline ;
As evening shadows lingering on the plains
Gleam dim and dimmer till they cease to shine :
The busy bee hath humm’d himself to rest ;
Flowers dry to seed that held the sweets of spring ;
Flown is the bird and empty is the nest,
His broods are rear’d, no joys are left to sing.
There hangs a dreariness about the scene,
A *present* shadow of a bright *has been*.” *

In rural lanes how beautiful the ruddy fruit of the wild rose droops at the end of its long branches ; how rich the darker red of the haws ; how bright the pink capsules of the Spindle-tree, just opening to show the orange *arill* of the seed ; the splendid varied hues of green, orange, and scarlet, exhibited by the clustered berries of the twining Bryony (*Tamus communis*) forms itself a picture ; then, in contrast, Blackberries trail their sable clusters, tempting with their empurpling stains many a rustic finger—and there loaded with its erect black fruit is the Privet, on whose top a crimson-breasted Bullfinch has just settled for a passing regale.

At this time of year, when flowers are dead or dying away, it is very pleasing to contemplate the various wild fruits and berries that characterize the autumnal landscape, and therefore it may not be uninteresting to place the principal autumnal Berries of Britain, with their various tints and hues, in juxtaposition.

Mr. T. FORSTER, in his *Encyclopædia of Natural Phenomena*, says that "Berries in the hedges often forbode a hard winter, and severe weather frequently occurs in seasons when they are particularly plentiful on the Rosebush and Hawthorn." So CLARE, in his homely notices, says with reference to the squirrel's stores—

"How against winter it was well prepar'd
With many a store in hollow root or tree,
As if being told what winter's wants would be
Its nuts and acorns he would often find,
And hips and haws, too, heaped plenteously
In snug warm corner."

But these wise saws of hard winters, betokened by plenty of berries, are by no means to be depended on, though a large crop of berries may invite numerous fruit-eating birds.

FRUIT AND BERRY-BEARING BRITISH TREES AND SHRUBS.

Barberry (*Berberis vulgaris*), berries crimson.

Spindle-tree (*Euonymus Europæus*), capsules pink.

Common Buckthorn (*Rhamnus catharticus*), berries black.

Alder Buckthorn (*R. frangula*), berries at first red, finally deep purple.

Common Sloe or Slon, (*Prunus spinosa*), drupes downy blue, finally purple black.

—————"the ripening sloes, yet blue,
Take the bright varnish of the morning dew."—CRABBE.

Raspberry (*Rubus Idæus*), fruit red.

Upright bramble (*R. suberectus*), fruit at first bright red, at length deep mulberry.

Blackberry (*Rubus var. species*), fruit at first reddish, finally deep black.

—————"the berries of the brambly wood
That stud the straggling briars as black as jet."—CLARE.

Dewberry (*Rubus cæsius*), fruit blue.

—————"as if begloss'd with dew,
Shining dim-powdered with a downy blue."

Stone Bramble (*R. saxatilis*), fruit crimson.

Wild Roses (*Rosa canina* & *var. species*), light red to vermillion.

Burnet Rose (*Rosa spinosissima*), fruit purple-black.

Hawthorn (*Cratægus Oxyacantha*), berries red.

Cotoneaster (*C. vulgaris*), berries scarlet.

Crab (*Pyrus malus*), fruit deep red.

"Crabs sun-reddened with a tempting cheek."—CLARE.

Wild Service (*Pyrus torminalis*), fruit brown.

Mountain Ash or Rowan (*P. aucuparia*), fruit bright orange to scarlet.

"The scarlet Rowan seems to mock
The red sea coral-berries, leaves and all;
Light swinging from the moist green shining rock,
Which beds the foaming torrent's turbid fall."

HON. MRS. NORTON.

White Beam Tree (*Pyrus Aria*), fruit at first downy and dusky-brown, at length red.

Ivy (*Hedera Helix*), berries at first green, then brownish, finally smooth and black.

"Dark creeping Ivy, with thy berries brown,
That fondly twists on ruins all thine own."

Dogwood (*Cornus sanguinea*), berries black.

Mistletoe (*Viscum album*), berries white.

Dwarf Elder (*Sambucus Ebulus*), berries deep purple or shining black.

Common Elder (*S. nigra*), berries raven-purple.

Mealy Way-faring Tree (*Viburnum Lantana*), berries at first red, finally purplish black.

Common Guelder-rose (*Viburnum opulus*), berries bright orange to waxen red.

Honeysuckle (*Lonicera Periclymenum*), berries red.

"The woodbine trees red berries bear
That clustering hang upon the bower;
While, fondly lingering here and there,
Peeps out a dwindling sickly flower."—CLARE.

Bilberry (*Vaccinium Myrtillus*), berries blueish, or glaucous black.

"Pinch the maids as blue as bilberry."

Cowberry (*V. Vitis-Idæa*), berries red.

Cranberry (*V. Oxycoccus*), berries dull red.

Holly (*Ilex aquifolium*), berries scarlet.

Privet (*Ligustrum vulgare*), berries black.

Woody Nightshade (*Solanum Dulcamara*), berries bright orange.

Deadly Nightshade (*Atropa Belladonna*), berries black, *poisonous*.

Common Mezereon (*Daphne Mezereum*), berries red.

Spurge-Laurel (*D. Laureola*), berries black.

Crow-berry (*Empetrum nigrum*), berries black.

Juniper (*Juniperus communis*), berries at first green, gradually becoming bluish black.

Yew (*Taxus baccata*), drupes deep red.

To these might be added the scarlet berries of the *Arum*, very conspicuous beneath hedges in the autumn, and long persistent if not destroyed. A fruit-like appearance is well simulated too by those curious Galls upon oak-leaves, which on their sunny side glow with the brilliance of a strawberry or peach, and are often very numerous at this season, sometimes two or three clustered together. They are produced from the agency of a little Gall-fly, a species of *Cynips*.

In a popular point of view the Hazel coppices loaded with nuts have, in the autumnal season, a peculiar and exciting interest, and, to those who have ever lived in the country, the remembrance of nutting excursions call up recollections teeming with delight. The deep embowering shade, the crashing bough, the brown clusters, and the joyous laugh that then was from familiar faces now lost to the scene, flash upon the mind like fiery sparks that beam in beauty for a moment to be extinguished as quickly again. The rustics enjoy a saturnalia here, for once ungrudged to them, and their undisputed game clusters around their torn and battered hats :—

“ The woodland bowers that us'd to be
Lost in their silence and their shade,

Are now a scene of rural glee,
With many a nutting swain and maid.

The scrambling shepherd with his hook,
'Mong hazel bows of rusty brown
That overhang some gulphing brook,
Drags the ripen'd clusters down."*

Nor is the botanist without his interest in the auburn clusters. The catkins of the hazel were waving in January, the first pennons of the progress of stamiferous action, yet nine months have elapsed ere the ripened nut has presented itself to view. And now singly or in thick clusters the nuts appear enveloped in their shrouding husks, clinging close to the hazel branches, very different in aspect from the long waving catkins. But these only shed the pollen necessary to fructify those tufts of sessile crimson threads that on branches below the catkins are ready in early spring to imbibe the impregnating influence provided for them. It needs a prying eye to see these red stigmas clustered together within their scales, each pair surrounded by a jagged involucre, which, growing large and succulent, becomes the husk surrounding the nut. The stigma shrivels up, but at its base is a two-celled ovary whose shell hardens on the one hand, while one ovule alone filling the cavity with its embryo, the perfect nut is completed. Often the cluster of red stigmas are only partially fructified, and then one or two nuts only are formed, but if the whole take, then a large cluster is perfected. The hard shell now safely shelters the kernel, which is the food appropriated for the young embryo, should it remain for vegetation. In that case, unmarked by

the squirrel, it drops upon the ground and is covered up by dead leaves. The young plant slumbers within its cell, but rains pour upon the leaves about it, and the moistened darkened shell at length becomes soft, and in due time relaxing, splits in two;—the nut gradually separates into two lobes, a *dicotyledonous* embryo appears to view, whose radicle and plumule quickly enter upon their allotted functions.

Under hedges and in secluded lanes, even at this late period, while lines of radiance quiver across the landscape, how beautiful is the tranquil scene. The leaves vivid with the sun's latest tinges, and, as if coloured with expiring passion, fall exhausted to the ground, silently yet imperceptibly strewing the paths with a crisp covering, exhaling not scents of death but those of revivification, for nature is her own embalmer. The ground becomes coloured for artistic painting with the brown leaves, and the hedges themselves are dyed in purple and crimson where the dogwood or the viburnum yet hold their foliage, or the dewberry shows its sanguine-stained leaflets, or coily hangs its blue opaque fruit on the banks of the weedy ditch. There in the water the Loosestrife (*Lythra salicaria*) seems to have been dyed in blood, and masses of Bur-reeds yet green, show their powdery stamens or globose heads of prickly fruit.

Penetrating farther among yielding mosses and black morassy soil, where silence is brooding among bogs, withering Carices, and Cotton-grasses, with stagnant pools gleaming in the duskiess, a sight of verdant loveliness refreshes the eye in the bending stems and whorled branches of the Wood Horsetail (*Equisetum sylvaticum*), apparent for a long extent on

the verge of the sullen morass, like a grove of miniature pine trees. So have I seen them drooping in beauty over the dark boggy ditch or stream, just bubbling into life, in dreamy solitudes in South Wales, visited only by the woodcock or moisture-loving snipe. In Glyn Neath they adorn the scene in many places, and I have observed them plentifully by a marshy wood, between Neath and Britton Ferry, in company with the yellow flowering *Lysimachia vulgaris*. Mr. EDWARD NEWMAN, who has made the British Ferns all his own in his most elegant as well as scientific descriptive volume upon them, dips his pen in poetry when mentioning this Equisetum. "In Scotland," he says, "I observed it growing with peculiar luxuriance in the vicinity of Loch Fyne, in a little fir wood on a hill side. The fructification had entirely disappeared, and each stem had attained its full development, and every pendulous branch its full length and elegance. Altogether I could have fancied it a magic scene, created by the fairies for their especial use and pleasure, and sacred to the solemnization of their moon-lit revels. It was a forest in miniature, and a forest of surpassing beauty. It is impossible to give any adequate idea of such a scene, either by language or illustration. In Wales it occurs at Hafod, and near the Devil's Bridge, in deep shaded ravines, occasionally straggling into open and exposed places, but then partially divested of its characteristic elegance."*

Still tempted to look out even amidst the gloom that oft envelopes the skies of October, when heavy towering tempestuous clouds crowdle densely upon each other, and the river reddens with rainy strife,

* NEWMAN, in *Phytologist*, vol. i. p. 694.

the homely Bramble, with all its prickles and its sable fruit, urges on the botanist to the latest explorations of the season; and its excitements are joyous and delectable, as I have often found with enthusiastic friends. See its shoots spreading and rooting with wild luxuriance, long panicles of sable fruit depending, its digitated leaves now becoming crimson-stained or dotted with purple from the attacks of epiphytical fungi, its stems horrent with thorns, and sparkling with purple setæ. Other more erect ones are lifted high into air, forming dense spreading thickets of fruit and verdure almost impenetrable. Thanks to the *Rubi* for many a pleasant excursion. One of the last, in company with a botanical friend, was chequered by a rushing storm when among the glades and shining pools of Sutton Park, near Sutton-Coldfield. The skies suddenly blackened, empurpled the pools, and shadowed the fading groves—the wind crackled the dead branches as it swept along—and then poured down the descending deluge with such rapidity that our books and papers (for we were then at our dejeuner) were at once soaked, and we ourselves somewhat damped in ardour ere we could run to the dense clustered hollies that offered their friendly shade. There we hugged our shelter while the pools were all in ferment with the violent rain, until a smile of sunshine again gladdened the solemn woods.

Last in the train of our native wild shrubs, the Ivy (*Hedera helix*), now exhibits on many a garden wall or neglected ruin, its sad inconspicuous and almost unnoticed flowers. They present no beauty in their aspect, yet are courted as a last resource by bees, flies, and many dipterous insects, and even the brightest

butterflies—the iris-winged Peacock and the red Atalanta, come like improvident prodigals flashing in splendid attire when other hopes have failed, to the feast which the careful ivy has yet power to provide. Even in this last flower of the year the same instructive lesson of adaptation to circumstances is given us as is seen throughout the floral chapter. The anemone shuts up its petals from the wind, the pimpernel closes its corolla from the rain in summer time when plenty of sunshine is to be had, and daisies and buttercups early recline the languid head, for they can get up again with the rising sun. But the gleams of October are few, and the days short, so the petals of the ivy often expanding in obscure places, are closely reflex, that the sun's rays may exercise their full power upon the stamens and pistils, and they are thus ready to imbibe every vagrant beam that approaches them, to ensure the formation of the berry. Thus is a designing Providence shown in arranging the mechanism of a flower according to the season when it has to appear. The Snowdrop is erect in infancy and pendulous in maturity to escape the storm, while the poppy is the converse to imbibe the sun; and the ivy still more requiring solar agency at a period when it is daily becoming less, opens its petals to the light, and recurves them never again to furl upwards.

“A rare old plant is the Ivy green!”—and as winter approaches especially does it become an ornamental object wherever it entwines itself whether on ruined tower or aged tree.—

“It changes not as seasons flow
In silent changeeful course along;
Spring finds it verdant, leaves it so;
It outlives Summer's song.”

Ivy may be well considered as a curious kind of underwood, seeing that it is a most vigorous climber, and also one of the best possible carpets for the ground under large trees. It kills nearly all sorts of weeds and other undergrowth vegetation where it assumes the lead, and creeping along the ground may derive its chief nutriment far from the barren place which it thus covers. It proceeds along the ground till meeting with some friendly tree it seeks from it a prop on which to lean, giving in return a profusion of glossy evergreen foliage pleasant to contemplate. It certainly takes no sustenance from the tree it covers, and it has thence been considered as doing no harm, and kind Mr. WATERTON ever ready with a good word for bird or plant, says that "it is not in a condition to compress injuriously the expansive powers of the tree proportionally stronger than its own." Certainly not at first, but as it is a partner for life when once the union is proclaimed, it obtains a higher ascendancy and firmer grasp every year, its original twining stem has become a huge bole, and its compressing branches like serpents twist and twine around every branch of the tree it is established upon, and its "marriageable arms" will take no denial—it reigns supreme as an *ivy tree*, and the original stump has become a mere peg for the ivy to disport itself upon at will, an embrace from which there is no escape while the tenacious climber continues to exist.—"A rare old plant is the Ivy green."

Once more we turn towards our garden pales, where in the shrubbery the *Arbutus* (*A. unedo*), gives us a last glance at floral beauty, its flowers of the purest lustre mingling with its pendant ruby strawberry-like

fruit. It thus offers a type of that perpetual spring believed once to have pervaded the whole earth—

“Green all the year; and fruit and blossoms blush’d
In social sweetness on the self-same bough.”

The *Arbutus* is celebrated for its connection with the Lakes of Killarney and the monks of Mucruss, finely adorning, as it does in the present day, the romantic district of the south-west of Ireland, whether truly indigenous there or not. It is a native of Italy and the south of Europe, as well as of Asia Minor, where some use appears to be made of the fruit, insipid as it tastes in this climate, however beautiful its strawberry simulation. It may be considered as curious that a tree whose fruit certainly fed the early and simpler races of mankind, should now be cultivated only for its beauty as a shrub, while humbler plants have been increased in size and luxuriance, and elevated into importance for their development by horticultural effort. Several of the classic poets have mentioned the *Arbutus*, and its shade (“*arbutus umbra*”) is alluded to by VIRGIL, as a pleasant ingredient in that sunny climate. LYELL mentions it as covering the slumbering volcanic hill of Monte Nuovo, near Naples, which like Vesuvius of old, may one day again awake and scatter the magnificent woody vest that now envelops it, in burning splinters through the air. OVID has mentioned the “*rubenti arbutus*” as an object of ornate beauty; but the moral attaches to it that its charms are but deceptive, the specific name *unedo* being supposed to indicate that no one would eat it more than once. There are things, indeed, that had better not be tasted at all.

EXPLORATORY NOTICES FOR OCTOBER.

IN the country a pallid or umber covering of withered leaves may now be truly said to have invested and almost entirely hidden all traces of phanerogamous vegetation; for—

“In the mid days of autumn, on their eves
The breath of winter comes from far away,
And the sick west continually bereaves
Of some gold tinge, and plays a roundelay
Of death among the bushes and the leaves,
To make all bare before he dares to stray
From his north cavern.”*

So in the woods the leaves fall thicker and thicker, till the ground is softly matted and of an umber die, forming a nidus for many fungi. Yet a few flowers struggle to the last, contending with stormy gusts and short days, so that the Botanist will not find all barren in his Explorations even now; and, indeed, a moist season frequently discloses some kinds of plants to greater perfection in the autumnal season than at any other time, while, under such circumstances, even vernal flowers will again renew their perishable beauties. No walk, then, need be made in vain, for late in this very month I have gathered *Chlora perfoliata*, *Gentiana amarella*, *Acinos vulgaris*, *Cnicus acaulis*, and *Campanula glomerata*, all in full flower, not to mention several species of *Mentha*, *Thymus*, and *Apargia*, that yet remain studding the meadows and copses in various spots.

* KEATS.

As every day exhibits sadly increasing numbers of denuded trees spreading their melancholy skeletonized forms against the clear blue sky, the Virgin's Bower (*Clematis vitalba*), wreathed around them in woody limestone spots, often to a considerable height, begins to show its plummy seeds very conspicuously, though their snowy featheriness is not fully attained till the following month. It is not yet too late even for the water-plants, for various families of these may be found in October, in fine flower or fruit, as several of the curious genus, *Chara*, which occur, entirely filling whole ponds; or if the season has been dry, and the level of ponds and streams is lower than usual, individuals of the genera *Potamogeton* and *Ceratophyllum* can be easily gathered and examined.

But, in fact, new objects of attention occur on the very leaves themselves, withered as they are, and about to sink into total and irremediable decay. *Æcidii*, *Uredines*, *Reticulariæ*, and other minute *Fungi* fix upon them just before they fall, and stain them in a remarkable manner, while the lens discloses amidst what would be mere *mildew* to a common eye, numbers of minute spheres, of various colours, which, in some cases bursting, expose to view countless multitudes of still smaller globular *sporules*, invisible but to the microscope, which are the reproductive particles from which future *acotyledoniæ* are to spring. Such are the minute wonders of Divine skill.

Fallen leaves have often a most curious appearance, pustuled, distorted, coloured or blackened by epiphytical fungi—thus full of life even when supposed to be dead. *Dothidea Ulmi* makes elm leaves appear as if covered with a sparkling metallic substance, while

sycamore leaves are covered with black patches from *Rhytisma Acerinum*, another curious little epiphyte. Even in summer the foliage of the Maple may frequently be seen white-washed to some extent by a little *Erysiphe*, but in autumn these vegetative vermin multiply and spread about to a wonderful extent. Fallen hazel leaves are frequently dotted with hoary patches of the *Erysiphe guttata*, and numerous others tinge, stamp, or mark fallen leaves, offering plentiful employment for the thoughtful consideration of the mycologist, while light enables him to inspect them.

Often on a dreamy autumnal day, when the misty wreath has rolled down from the hills and enveloped the level country in vapour, through which no sound vibrated upon the ear, has twilight surprised me upon woody heights covered with holly-trees and carpeted with long damp moss. Then, ere I descended, what a scene of grave tints and awful shadows has appeared beneath the western sky, where only a long line of deep ruby has rested, partly intercepted by one dark distant mountain peak. In the world of darkness below me, the trailing blue smoke was but just visible, and the yellow gorse and brown fern of the wild heath hardly discernible.

WILD FLOWERS OF NOVEMBER.

CHAP. XXVI.

CRYPTOGAMIC VEGETATION, AND THE TRIBES COMPOSING IT—ASPECT OF THE FUNGI—FAIRY RINGS—BEAUTY OF THE AGARIC AND OTHER TRIBES — OFFICE OF THE FUNGI—NOTICE OF THE SMALLER FAMILIES—NOMADIC AND METEORIC PHENOMENA—RAPID GROWTH OF THE MUSHROOM, AND DERIVABLE SIMILES — PLEASURES IN SEARCHING OUT THE DIVERSIFIED FUNGOID FORMS.

“When Flora’s lovelier tribes give place,
The mushroom’s scorn’d but curious race
Bestud the moist autumnal earth;
A quick but perishable birth,
Inlaid with many a brilliant die
Of Nature’s high-wrought tapestry.”

BISHOP MANT.

WHERE shall we cull a garland for November, amidst wailing winds, scudding clouds, and driving leaves? Not surely in the garden, for *there* blight and desolation fill the flower border with disordered heaps, whirls of withered leaves rush about in disorganized files as the fitful gales impel them, the butterfly is no longer seen, and the hum of the bee has ceased to murmur forth the exciting sound of sunny hours. But there are still objects of attraction for the “Botanical Explorator;” and leaving the poets to harp the dirge of fading flowers at their leisure, we shall pro-

ceed to describe the particular vegetation we have in view—

“Beneath a spreading Mushroom’s fretted roof.”*

When LINNÆUS formed his celebrated Sexual System, he was compelled to include under the term CRYPTOGAMIA, a vast number of plants having no visible flowers, but which were assumed to have analogous organs to those of the PHANEROGAMIA, though altogether *concealed* from view. Modern botanists are not in general disposed to acquiesce in the idea of LINNÆUS, but regard the flowerless plants as altogether destitute of sexual organs, their reproduction taking place by means of *sporules*, which are enclosed in cases called *thecæ*, or imbedded in the substance of the plants, or else by a mere dissolution of the utricles of cellular tissue. These sporules, which are often exceedingly minute, have no embryo, like seeds, consequently their growth is not a development of parts already existing; but a vegetation appears which seems to be controlled in a considerable degree by the matrix to which the sporule has become attached; and it has been conjectured† that from the same common form of matter, a lichen, a fungus, or an alga, might be developed according to varied conditions of soil and atmosphere. It would be rash to accede to this view without the fullest proof, though, at all events, the sporules germinate at no fixed point, the mere accident of situation determining what part shall rise upwards and sink downwards.

The principal cryptogamic tribes are, the *Filices* or Ferns; the *Lycopodiaceæ* or Club-mosses; the *Musci* or Mosses; the *Hepaticæ* or Liverworts; the *Fungi* or

* DR. DARWIN.

† SEE LINDLEY’S *Botany*, in loc.

Mushrooms ; the *Lichenes* or Lichens ; and the *Algæ* or Seaweeds. The *Equisetaceæ* or Horsetails, formerly considered as cryptogamous, are now, according to BROGNIART'S observations, to be considered as allied in their fructification to the fir tribe ; and Dr. LINDELEY, in locating them in juxta-position with the latter in his *Natural System*, remarks, that " we must admit that *Equisetaceæ* are more like flowering plants than flowerless plants ; and it seems to be most advisable to consider them a degeneration of *Conifera*, to which they have so much resemblance, rather than a race in affinity with Ferns, with which they have really no resemblance." The Wood Horsetail has been previously referred to, nor is the Great Water Horsetail much inferior to it in beauty, the latter often covering marshy spots with a dense fir-like though comparatively dwarf vegetation. *Equisetum limosum* is common in ponds, which it sometimes fills with its green upright pipes, surmounted by their black catkins. The Corn Horsetail (*Equisetum arvense*) shows its brown fertile frond and catkins early in the spring, the green much branched sterile plants appearing at a later period.

I purpose, in this chapter, to dwell only upon the curious and diversified structures denominated *Fungi*, which now meet the observant eye in almost every direction, but especially in the dark walks of the neglected shrubbery, the thick wood, the old fir grove, or even in open pastures, where they are often conspicuous at a considerable distance in the outline of those remarkable circles and segments commonly called " fairy rings," from an ancient superstition that they were caused by fairies dancing within these

“green sour ringlets;” and hence SHAKESPEARE makes a fairy say in his *Midsummer Night's Dream*—

“I serve the fairy queen
To dew her *orbs* upon the green.”—

as the fresh verdure of these rings was said to be occasioned by the fairies watering them. Titania also observes to Oberon in the same play—

—————“Dance in our *round*,
And see our moonlight revels.”

It would thus appear that the beauty of the “fairy rings” consisted in their regularity of form and their delicate viridescence amidst the extent of browner pasture. To the observant eye of the Botanist, however, their beauty is greatest when their circumference sparkles in the morning dew with a polished girdle of Agarics, sprung up in the silent night, fresh and spotless as so many new laid eggs! Various species of Agarics occur on the edges of “fairy rings,” though, perhaps, the brown gregarious *A. oreades* is most common, though making a less regular figure than others. A large Agaric, of savoury smell, which I have chosen to call the “Dryad's Cup” (*A. infundibuliformis*, Bull.), from its assuming the regular shape of a goblet, sometimes filled with crystal dew, often exclusively adorns rings in the vicinity of woods; while in open pastures the blue-stemmed Agaric (*A. personatus*), occasionally forms so closely shielded a satiny buff circle of pilei, that a snail might *circumslide* the ring without any interruption to his course. Continued rain, unfortunately, soon destroys the elegance of these evanescent fungoid orbs—for they are not the cause of the *permanent circles* remaining in the pastures, as these merely offer favourable *nidi* for the

growth of the Agarics. Some botanists have considered that the fairy ring was originated by an agaric disseminating its spores in a circular manner, and a small ring being thus formed, the size of the circles increased with every succeeding year; but it does not appear perfectly clear that the rings do increase in size, and certainly as regards the fungi upon them they seem suddenly to appear at once in good sized rings, but they are often very irregular in their outline. The old superstition that represented them as made by the dancing of fairy elves surely implies the sudden appearance of a large circle, nor have I met with very small ones, as supposed in the above theory. CLARE, alluding to the fairy origin of the rings, says—

“Light soon betrays ’em where their routs have been,
Their printing foot-marks leave a magic dye,
The grass grows gloomy in a darker green,
And look for years to come, and still the place is seen.” *

The beauty of colour and diversity of form of the race of fungi are very remarkable, and well repay attentive inspection. Some, as the *Amanita imperialis*, adorn the wood with caps of the richest scarlet on white stems; others, as the *Agaricus integer* spot the coppice with lake or crimson; or in the *A. violaceus* and *callochrous*, display the most beautiful hues of purple and violet.

Hilly pastures are very favourable to the growth of fungi, and I have often been delighted with the brilliant tints bespangling the turf upon the Malvern hills at this period of the year, from the splendid yellow and orange hues of the sportive *A. aurantius*, and the deep verdigrise hue of the stalk of *A. psitta-*

* *Village Minstrel.*

cinus, intermixed with others of the most delicate ivory white, or dark and shaggy with brown hairs. Then a descent into some deep sequestered wood offers a varied and charming spectacle soon as the foot treads upon the crimp brown foliage, and the eye peers about among the shadowed nooks still penetrable with difficulty. Here, pillowed on a twig, like a humming-bird's nest with eggs, appears the brown *Nidularia*—half immersed in black mould a family of crimson *Pezizæ* meet the eye—the curious *Hydnum* rises, its under surface all prickles—*Auriculariæ*,* in banded masses of dark plush or velvet, circle every old stump—and the ground is strewn with coralloid tufts of *Clavariæ*, white, purple, or yellow. In short, every heap of decaying wood, leaves, or other organized matter, will be found teeming with these vegetable vultures, whose office it seems to be to take possession of, if not to resuscitate the molecules of dead or dying substances; and thus by a continuance of the vital functions keep on that healthy action between themselves and the surrounding atmosphere, which, without their aid, would become contaminated by the constantly increasing masses of putrescence. Thus, the scents diffused by the fungi are almost invariably of a grateful description, at least before in *their* turn they decay; and in effecting this compensating object, the efficient contriver of their economy has caused them to appear in the most singular forms, such as cups, urns, bowls, globes, &c., and of every tint and colour (though blues and greens are rare), as if to deck even decay and ruin with beauty, nor leave a single deformity to repress curiosity, or still the voice of instruction.

* Or *Thelephora*, of recent cryptogamic writers.

Various arrangements of the fungoid tribes have been propounded by botanists, of which the most celebrated in modern times is that proposed by FRIES, who divides the whole order into four cohorts;* but, unfortunately, the names he employs are as indigestible as the substances treated of, and would probably only annoy the observer who had not a life to devote to the subject, or ample time for minute attention to microscopical examination. As they meet the eye of a "looker-out," we may consider them as *casual* or uncertain, and *fixed* or constant. The latter are so identified with the living or dead organic substance on which they are founded, that like the vulture on Prometheus they ever remain to feast upon their prey, while its juices supply them with sustenance. They may be considered as annual or perennial, according as they develop themselves upon the foliage of plants under the names of mould, blight, mildew, &c., or as dry-rot expand in leathery masses among the fibres of decaying timber, or appear upon hollow or diseased trees in the shape of *Boleti*, *Polypori*, or *Dædaleæ*, as large flabelliform tiled masses, increasing in bulk year after year.†

The smaller annual fungi, especially the *Æcidii*,

* Professor BURNETT observes, that though "Mycologists greatly differ in their arrangements, they all, more or less agree with the popular distribution into *Blights*, *Puff-Balls*, and *Mushrooms*."—*Burnett's Botany*, p. 177.

† Some of the species of *Polyporus* grow very large in neglected spots, becoming hard enough to sit or stand upon, the Willow Polyporus (*P. igniarius*) being often as large as a man's head. *P. fraxineus* forms very hard brown jutting masses on ash trees, slowly increasing and long enduring; one is mentioned by Mr. M. J. BERKELEY that was nearly 42 inches across. Similar fungi attain a great magnitude in the southern hemisphere, as Mr. ANGUS in his *Savage Life and Scenes in Australia*, states that "the large shelving Fungi growing from the trunks of the trees, near the roots, are so broad and strong as to form capital seats."

often dot the leaves of plants with orange and brown spots in a very pretty manner, and with a lens put on the appearance of a multitude of minute cheese cakes ! The *Æcidium* of the common Dock, which is pure white, is peculiarly elegant, and furnishes an instance of the extreme beauty often perceptible in the very minutest objects. The genus *Trichia* contains several curious species, all found growing upon rotten wood. The yellow-seeded *Trichia* (*T. chrysosperma*, Dec.), may be often found in coppices during the autumn, occupying the interstices of decaying stumps, with its clustered yellow *peridii*, which resemble the small cocoons of insects. These bursting display masses of gold-coloured wool, enclosing the numerous minute sporidia. Persons residing in the country, with leisure at their command, need never want employment in examining the smaller tribes of fungi at this season of the year, nor need they go far to find them—every copse, hedge, and broken stick, teeming with them, especially the diversified and numerous tribe of the *Sphæriæ*, which are nearly all attached to bark in a rotten state, or decorticated wood, in this respect differing from the *Lichens*, which are confined mostly to *living* bark. No less than 201 species of *Sphæria* are enumerated in HOOKER'S *British Flora*; one of the largest and most obvious being the round black *S. concentrica*, so often seen upon dying or dead Ash trees. Almost every plant, not to say nearly every leaf, indeed, nourishes some kind of epiphytical fungus, such as the *Puccinia* or *Uredo*, conspicuous as a red or yellow eruption upon the upper or under sides of leaves, and they are so numerous and common that it has been suggested by some botanists that their

appearance can only be accounted for by the supposition that they are "anamorphoses" of the cellular tissue of plants.* Undoubtedly the minute sporidia must be carried up into the system by the circulation of the sap, and imbibed from the moisture amidst which they were disseminated.

The great mass of *casual* fungi are well known by the common names of mushroom and frogstool, and their appearance seems to depend, in a great degree, upon meteoric causes. Hence in wet weather various species of orange, brown, or green *Tremellinæ*, appear suddenly on the ground or branches of trees, as if fallen from the sky; while in seasons of great drought the edible mushroom is scarcely procurable, and *ketchup* becomes dear. On this account LINNÆUS called the fungi *nomades* or wanderers, from the curious fact that their vagrant tribes may appear in a place in the utmost profusion in one season, and then be altogether absent for a number of years, or even never return again—either lying dormant in the soil till the meteorological circumstances under which they appeared again arise, or else their viewless spores rising in the atmosphere and borne by the winds to far distant countries, may there hurried downwards by rain, once more spot the green earth. In corroboration of this latter view, out of fifty-six species of fungi gathered by BERTERO in the distant island of Juan Fernandez, two-thirds were found to be referable to well-known European species. With respect to the former, I well remember gathering, many years ago, the splendid crimson-red *Agaricus rutilans*, in a particular fir grove near Worcester; but though I have

* See HOOKER'S *Brit. Flor.*, Vol. II., Part 2., by BERKELEY, p. 326.

since hunted the spot over year after year with the nicest search, I could never detect its golden gills there again. So in the spring of 1841, I found, to my surprise, the rare and curious long-stemmed Morell (*Morchella semilibera*) in several spots near Tewkesbury, and actually in the orchard close to my own entrance-gate, at Forthampton, although I had never previously met with it in my life—another year it may not be found. I once also gathered the Turreted Starry Puff-ball (*Geaster fornicatus*), in a lane where I could never again find it, and the appearance of the curious *Helvella mitra* is very uncertain. In this tribe, then, in particular, the collecting botanist should act upon the principle of "*carpe diem*"—or the opportunity may be lost for ever of minutely inspecting these fugaceous structures—

“ Whose tapering stems, robust or light,
Like columns catch the searching sight;
Like fair umbrellas, furl'd or spread
Display their many-colour'd head,
Grey, purple, yellow, white, or brown,
A Grecian shield, or prelate's crown,
Like freedom's cap or friar's cowl,
Or China's bright inverted bowl.” *

Some of the *Pezizas* are exquisitely lovely, especially the crimson coloured *P. coccinea* often seen upon black decaying sticks under hedges, or the Orange Peziza (*P. aurantia*), scattered upon the ground like pieces of bright orange-coloured saucer-shaped jelly. The little blood-red *P. humosa* is very pretty when seen scattered among verdant mosses; and I lately had in my garden a gregarious species on a piece of

* Bishop MANT.

wood, resembling an air bubble encircled with a ring of the minutest pearl beads. Others are like minute Roman urns, shells, or saucers; a few are even globular and wax-like.

The "Jew's-ear" (*Exidia Auricula-Judæ*), is a singular brown flabby fungus occurring on old elder-trees, and so called from its plaited surface frequently exhibiting the form and depressions incident to the human ear. Witches' Butter (*Exidia glandulosa*) in greenish or black gelatinous masses, is another species not uncommon on fallen branches of trees. Paste and froth are simulated by some fungi; and mildews, moulds, &c., are only other forms of this singular omnipresent and versatile parasitical vegetation.

Several of the Fungi have subterranean habitats, as the *Sclerodermata*, and the curious Truffle, which usually grows beneath the shade of Beech trees, whence it is scented out by dogs trained for that purpose. NEES VON ESSENBECK mentions a poor crippled German boy who could detect truffles in the earth with a certainty superior to the best dogs, and so earned a livelihood.

It seems to be the allotted office of the Fungi to disperse organic matter into the smallest possible particles, and with the view to their dissemination, several tribes have mechanical contrivances not unworthy of attention. Every body is familiar with the puff-ball, or "devil's snuff-box," whose subtle powder pervades the air at the slightest touch, though few, perhaps, consider the millions of sporules they thus playfully set at liberty, will, in due time, develop other structures, as large as the parent plant from whence they arose, although now seemingly dissipated

and lost in air.* Many of the *Trichias* put forth a glossy coloured wool, which is in like manner acted upon by the wind; and the congregated *Spherobolus stellatus*, after the manner of a mortar, shoots forth a small globular sporangium or seed vessel, which rises to some height in the air. As BULLIARD mentions Puff-balls of the enormous size of *nine feet* in circumference, and some of the tropical fungi it is said have been mistaken for *sleeping lions*;† they seem to furnish a picture analogous to MILTON's spirits, that in their spacious hall—

“Swarm'd and were straiten'd; till the signal given,
Behold a wonder; they but now who seem'd
In bigness to surpass earth's giant sons,
Now less than smallest dwarfs.”

So under circumstances of brooding moisture, the fungi in the autumnal season put forth their deceptive strength, till grove, field, and hill swarm with their multitudes; but sudden as is their appearance, their short duration is as surprising; and the largest dropping into liquidity or rising as dust in the air, soon “reduce to smallest forms” their monstrous shapes.

Much has been written on the edible qualities of the fungi, and Dr. BADHAM has lauded “the extem-

* The Rev. J. M. BERKELEY observes in the second vol. of HOOKER's *British Flora*, that—“In saying that these bodies are analogous to seeds and embryos, some little latitude must be allowed, as the mode of reproduction in perfect plants and *Fungi* is so different: it having been ascertained that multitudes of *sporidia* conspire to produce an individual fungus.” It seems mercifully ordained that meteoric contingencies are required for the production of these tribes, which prevents their plentiful recurrence, except at uncertain intervals; otherwise they would become the locusts of phanerogamic vegetation, and deform and destroy every other plant by their insidious attacks; for such is their fertility, that in a *single individual* of the species forming the smut in corn, (which is only noticeable in legions,) Professor FRIES calculated there was *ten millions* of sporules.

† See Professor BURNETT's Outlines of Fungologia, in his *Botany*.

pore beef steaks growing on our oaks in the shape of *Fistulina hepatica!*" as well as commending with Apician gusto "Hydna good as oysters," Puff-balls compared to sweetbread, *Agaricus deliciosus* "reminding us of tender lamb kidneys," &c.—but except as sauces, catchups, or pickled, they are best avoided, for even the genuine mushroom disagrees with some persons, and all too often swarm with the larvæ of insects soon after they are gathered. SCHWÆGRICHEN, indeed, a German botanist, is reported to have lived for weeks on raw fungi, bread, and water, with "rather an increase to his strength;" and such a diet might, therefore, probably meet favour with the lovers of "total abstinence" in the present day. On the other hand many fungi are most virulent poisons, and no certain antidote is known against their deleterious properties.* Toads were formerly supposed to have communicated this poison to the fungi, and hence the name of Toadstool. Perhaps, however, the German *tode* or *todt* (death), the frequent result of eating such indigestible things, may be the more correct derivation. On the whole this beauteous tribe are but the attendants of damp and corruption, and as direful diseases have arisen from the use of food infected by

* Dr. BADHAM in his work upon esculent Fungi has observed, that "the Mushroom proper like other funguses should be eaten fresh; a few hours making all the difference between its wholesomeness and unwholesomeness; nor need this surprize us when we consider how many principles enter into its composition—how short is the period of its existence—and how liable it must be to enter into new combinations in consequence. VAQUELIN found in its flesh fat, adipocere, osmazome, an animal matter insoluble in alcohol, sugar, fungine, and acetate of potash. What a medley! and what wonder if the changes induced during decomposition should cause the indigestions suffered by those who have eaten them in this state! The Mushroom having the same proximate principles as meat, requires like meat to be cooked before these become changed."

them, they seem to symbolize that golden fruit described by MILTON as presented before the longing metamorphosed fiends of Pandemonium, which glittered before their eyes, but became nauseous bitter ashes when they attempted to partake of it.

When the atmosphere is favourable for the production of some of the fungoid tribes, the celerity of their growth, and the strength they put forth in their emergence, is most astonishing in plants of such tender construction. A good-sized Mushroom, if accidentally located beneath a flag pavement, has power to force up a paving stone of the usual size, an inch or more above its level; and this was actually remarked in one of the most crowded thoroughfares of Cheltenham, in the autumn of 1840. Professor BURNET records a similar fact as having occurred in 1830, in the town of Basingstoke, where two Mushrooms elevated a large paving-stone, weighing eighty-three pounds, an inch and a half out of its bed; and other stones getting deranged in a similar way, much alarm was given to the pavement contractor, who had but recently finished his work—"for it seemed doubtful whether the whole town of Basingstoke might not want re-paving during the term of his contract."* This energetic evolution is shewn still more remarkably in other fungi, as the *Phallus*, which bursts its volva, and rears its singular stipiform columella six or eight inches in two or three hours; while the large *Bovista* or Puff-ball has been stated to distend itself at the rate of a million of cells per second!

The rapid growth of the Mushroom has often suggested the satirical application of the term to those

* BURNETT'S *Botany*, p. 239.



who may have sprung up suddenly into notice from obscurity, or who from some hiatus in their genealogical scroll, may be unable to prove positively their descent from Noah ! But this simile, in fact, hardly applies more to the mushroom than to any other annual plant. The sporule of the mushroom germinates, it is true, hidden from view ; and though called a flowerless plant, it would be more correct to consider the pileus that elevates itself above the grass as *all flower*, the real stem being subterraneous, and this pileus, if not accidentally crushed, often endures much longer than the flowers of the garden, whose fugaceous petals wither and die in an hour or a day. In support of this view some species of agarics have from ten to fifty pilei or "blossoms" rising from a single stem. If we proposed a simile at all, we might rather consider the agaric as symbolizing the fate of modest merit, having every energy rife for action, yet oppressed and obscured by unfavourable circumstances ; but the moment the concurrent opportunities coalesce, the irrepressible effort of genius presents itself, sudden, indeed, and unexpected as the meteoric plants we have been considering, that stud the fields and woods, unable to display their forms till the saturated atmosphere and reeking pasture gives that impulse to their latent powers, which the Great Former of all intended from the beginning.

If the "fungous fruits of earth," as COWPER calls them, are not so poetically exciting in themselves as the pencilled corollas of the higher tribes of vegetation, yet the search after them leads to scenes which have their peculiar charms, and where the mind can revel in its own imaginings surrounded by the sancti-

ties of Nature. The Fungi mostly appear in the autumnal season, when the finger of decay solemnizes the country, and fogs plunge into the long-extending woods amongst fallen sticks and mosses, calling up with their moist breath new forms of vegetable morphism which might not otherwise have appeared, and giving splendid colours to dissolving particles of matter. So with the Fungi our thoughts are connected with particoloured trees, withered heaths, and autumnal gusts and gleams—the mushroom brings in its train mists and shortened days, and so we must

—“Think of yellow leaves, of owlet’s cry,
Of logs piled plenteously:”

for the evenings then require a cheering blaze upon the hearth after a long hunt through damp woods and over green aftermaths.

I have many pleasant recollections of rambles among autumnal woods for Fungi, poring among dead leaves, or brushing through dwarf bushes and among broken stumps studded with black earth-tongues (*Geoglossum*), and then suddenly coming on a charcoal circle brilliant with the vermillion *Thelephora carbonaria*. Beech woods, in their sylvan aisles and deep brooding recesses, produce many local and curious fungi, and among those that so finely adorn the Cottswolds I have gathered the large brown Club *Clavaria* (*C. pistillaris*), and the tall attenuated *C. Ardenia*. Sometimes the wanderer comes upon a dank obscure and secluded shadowy place in a park, where wood has been stored for years, and fallen timber saturated by the rain, rots unnoticed on the dingy soil. Such a spot I remember to have noticed in company with my friend the Rev. A. BLOXAM, well known for his bota-

nical acumen, in Gopsal Park, not far from his residence at Twycross, Leicestershire. In the deep shade lay enormous imbricated masses of *Polyporus giganteus* like the crested heads of dragons, every trunk was densely fringed with bright coloured dewy masses of buff or purple *Thelephora*, and the black *Bulgaria inquinans* covered with its glue-like balls, the bark of those trees not entirely fallen off, as if the timber which they covered had been charred by the sack and fury of some bellicose outrage.

But the mycologist at his own free will may traverse more open and diversified scenery, where by the brook side some tottering old willow bears a crop of golden agarics or sweet-scented polypori; and thus the practical study of these curious structures, where something new is almost certainly to be found, may be strongly recommended to the young naturalist, as well observed by Dr. BADHAM, "not only for the beauty of the objects he is sure to come upon," but because "whether at home or abroad, it brings the wanderer out of beaten paths, to fall in with many striking views which he would not otherwise have explored."

WILD FLOWERS OF NOVEMBER.

(CONTINUED.)

CHAP. XXVII.

DESCRIPTION OF THE LICHENS—THEIR ASPECT ON ROCKS AND RUINS—EFFECT OF MOISTURE ON THEM, AND THEIR GENERAL ECONOMY—CHARACTERISTIC NOTICES OF THE DIFFERENT FAMILIES—EXCURSIONS TO THE ROCKS WHERE THEY ABOUND.

“We came to the hall of the king where it rose in the midst of rocks; rocks, on whose dark sides were the marks of streams of old. Broad oaks bend around with their *moss*.”—OSSIAN.

“This black den which rocks emboss,
Overgrown with eldest *moss*.”

GEORGE WITHER.

THE most unbotanical observer cannot but have noticed whenever he has passed a grove of ancient trees, or even a shrubbery of modern times, that many of the branches are grey, bearded, and overgrown with what, on a mere cursory glance, would appear to be *moss*, and so it has been denominated, not only by poets, as in the quotation of OSSIAN above, but even by the older botanists themselves, as may be seen by reference to old GERARD's description of the “*moss* of the oak,” in his well-known ponderous herbal. The grey and bearded aspect above alluded to, is caused by a tribe of plants denominated LICHENS, which hitherto have escaped our notice. But though a careless observer may confound the moss and the lichen, the

difference in their fructification, will, when pointed out, always abundantly distinguish them; and independently of this, curiously enough, the lichen is mostly grey or white, seldom green, while the moss is almost always green, and scarcely ever white, except in the *sphagnum*, or bog-moss. The designation of the tribe I am about to notice, is taken from the Greek word *leiken*, applied to scurfy substances, or signifying a wart, which the fructification of many of the lichens is thought to resemble, but it is rather similar to minute saucers. In botanical language these saucers are called *apothecia*, while the plants that bear them are said to have either a *thallus*, *crust*, or *frond*. With better taste the expressive English term *time-stains* has been bestowed upon the lichen tribe, from the coloured hues which time's unimaginable touch bestows upon rocks, precipices, towers, and old structures of every description, by the aid of these humid, pulverulent, or filamentous structures.

Maritime rocks are often resplendent with orange, yellow, or burnt-sienna tints, from the various lichens that there luxuriate in the damp sea-air; walls and roofs are copiously blotched with large patches of white or brilliant yellow, from their constantly extending growth; and who has not in his rural ramble oft gazed curiously at the old, broken, crusted, ragged, and diversified tumble-down barn door, that in its disjointed feebleness

“Like rock or stone it is o’ergrown
With *lichens* to the very top.”

The ruins of castles and abbeys are, in like manner, generally overspread with these coloured impressions of the damp fingers of time; and they are enumerated

by BERNARD BARTON, in his lines on Leiston Abbey, Suffolk, among the vegetable tracery overspreading that edifice, though, as before adverted to, confounded with *mosses*, in thus apostrophizing the ruins :—

“The mantling ivy’s ever verdant wreath

She gave thee as her livery to wear ;

Thy wall-flowers, waving at the gentlest breath,

And scattering perfume on the summer air,

Wooing the bee to come and labour there ;

The *clinging moss, whose hue of sober grey,*

Makes beautiful what else were bleak and bare ;

These she has given thee as a fit array,

For thy declining pomp, and her delightful sway.”

CRABBE, who, from having studied botany in his younger days, when a village pill-compounder, has often enriched his compositions with agreeable floral gems, manifesting the acute eye with which he surveyed the face of nature, has thus alluded to the effect produced by the lichens in harmonizing to the eye of the painter, those bald roughnesses which so offend correct taste in most new buildings, while at the same time he very correctly alludes to their mode of growth :—

—————“Yon bold tower survey,

Tall and entire, and venerably grey,

For time has softened what was harsh when new,

And now the stains are all of sober hue :

The *living-stains* which Nature’s hand alone

Profuse of life, pours forth upon the stone :

For ever growing ; where the common eye

Can but the bare and rocky bed descry ;

There science loves to trace her tribes minute,

The juiceless foliage and the tasteless fruit ;

There she perceives them round the surface creep,

And while they meet, their due distinction keep ;

Mix’d, but not blended ; each its name retains,

And these are Nature’s ever-during stains.”

While great part of the *fungi* are geodical, deriving their nutriment from the earth, though called into their transient existence by meteoric causes, the *lichens* may be considered as aërial, for though perennially fixed to the rocks on which they grow, and hence called by LINNÆUS *vernaculi*, or bond-slaves, yet in fact they derive all their nutriment from the air, and the more *that* is saturated with vapour, the more they flourish and extend themselves. Hence misty mountain tops, damp groves, and the vicinity of the sea, nourish more lichens than other places, and indeed it may be said that the lichen tribe only increase and extend themselves in wet weather. How often with mournful eye do we look up to the sombre skies which at this season of the year pour their dripping treasures with melancholy pattering upon the fallen leaves and denuded trees; how often is the misty vapour that wreathes the mountain's brow, and involves the streams and woods in its monotonous mantle of grey, regarded with a muttering murmur, as it rolls nearer and nearer, and at last flaps its dewy fingers upon our window panes, while some martyr to the rheumatism vainly turning his stiff and aching shoulder, slowly staggers to his easy chair! But, sad as this aspect of things may at first sight appear,

“When rain in torrents wood and vale deform,
And all is horror, hurricane, and storm,”

there are many things to answer by it in the economy of nature, and among these is the growth and spread of the lichens. As the rain descends, how these crustaceous plants, almost invisible before, extend themselves on every side, rioting in the moisture they drink up, and which they must enjoy while they can, for,

like the Esquimaux Indians, they have often to endure long fasts, and when the sun in summer blazes sometimes for continuous weeks, they seem shrunk up, bleached, and utterly dead. Yet, a single shower awakens their dormant vitality; they prick up, and distend their *thalli*, and imbibe the "mountain dew" till they appear so fat and bloated as to be utterly unlike their former selves—"disguised in liquor," as used sometimes to be expressively said of the old race of jovial toppers, in these degenerate days put to flight by the incessant assaults of the tee-totallers! The ciliated Borrerian lichen (*Borrera ciliaris*,) that often abounds on old ash trees, or hawthorns, giving them in the dimness of morn or eve the aspect of an aged man, "wi' locks o' siller gray," so dilates and swells its fronds in rainy weather, and assumes such a lurid green colour, as to seem at first sight quite a different plant. I recollect, too, a species of the collemate, or gelatinous lichens, which I have many times observed in showery seasons on the walls of Aberystwith Castle, black, fat, and bloated, with brown prominent *scutellæ*; but in a few days after the rain had ceased, not a vestige could be discovered of it, even on the closest inspection. In like manner the stones of a court-yard, or steps of a door, appear in dry weather to be completely free from extraneous substances; but a fall of rain is sure to disclose something green upon the stones, which, if carefully scraped off, and examined with a lens, exhibits the first rudimentary vegetation of the germinating powder of the lichens, which scattered in air, has fallen upon the stone, and is now called into existence by the teeming moisture to tinge and carpet the *humus* where it has been deposited.

Thus the lichens, being adapted to form the first clothing of the naked, rugged, rock, have the simplest re-productive organs, or rather may be said to be analogous in their multiplication to some of the zoophytes; for not only do the apothecia contain sporules to disperse the plants, but the divided medullary layer of the thallus itself is viviparous. In fact, among the lichens, the proliferous system seems to be carried out to its utmost extent, a wise provision in a tribe of such intermittent growth; for those "mealy warts," common on several lichens, and whose use has been disputed, are doubtless nothing more than thalliaceous expansions of the plants on which they occur, struggling to extend and multiply their species. It is instructive to mark any stony memorial, cross, pillar, or tower, and behold these apparently weak instruments of an Almighty Power, commencing the work of destruction on the monument that was to stand "in perpetual memory" of some proud action or vaunted hero—

——— "Who under the grey stone
So long has slept, that fickle fame
Has blotted from her scroll his name."*

First, the continued shower softens the surface of the stone, and forms a minute concavity on which the reproductive particle of the lichen can rest. It grows and extends with every dash of moisture, spreading out into broad plates, like ulcerous crusts on the skin of animals; it now corrodes and scoops out the stone into large cavities, like the still deepening water-furrow down the brow of the rugged mountain, and these hollows become filled up in time with the old decayed particles of the crust of the lichen. Mosses

* SCOTT.

are now able to effect a landing on the degraded rock, and as the old herbage of these die, fresh soil is created, till the fern and the flower in their turn appear with a load of ivy and berry-bearing trees.

“Braving the inclemencies of every climate and season,” says Professor SPRENGEL, “Lichens are the never-failing companions of the travelling botanist;” and so I have found them, and at a time when most other plants, except mosses and fungi, are in a dead or denuded state, their diversified hues and crowded apothecia, “make glad the solitary place.” In the crowded forest upon every tree, mystic characters appear, like old Cufic, Persian, or Chinese inscriptions, from which, as Sir JAMES SMITH playfully remarks, a fairy alphabet might almost be formed—these are the curious *graphideæ*, so called from the resemblance of their apothecia to writing. *Opegrapha scripta* and *O. varia* are particularly remarkable in this respect, and *O. elegans*, which is rarer, displays its large grooved black characters upon the oaks of the forest, as if presenting some dark enigma for a lover of the Dryades to decypher. The young branches in plantations of oaks are often so covered with the *Opegrapha macularis*, as to seem as if purposely blackened with gunpowder, or stained from an explosion of the same “villainous” material.

Another family forming the genus *Calicium*, have stipitate fruit, presenting to view a crop of fairy goblets, in some species rising from the brightest golden crust, which finely adorns the stateliest oaks of the grove. *Verrucaria* displays a great number of species on rocks, or the trunks of trees, distinguished by their bearing numerous black tubercles on the thallus. The

Lepraria are extremely common on old trees, and palings, which they stain so freely that they might be called white, green, yellow, black, or sulphur washes. These consist entirely of minute granules, and are therefore the simplest form known of the lichen tribe.

The species of *Variolaria* are known at a distance from the large white circles they form on many trees, with numerous white pustules. *V. discoidea* and *V. faginea* are the most common. The latter may be always known from the intensely bitter taste of its spreading adnate thallus. The common *Urceolaria* (*U. scruposa*), often covers sandstone rocks, old crosses in church-yards, towers, buttresses, &c. to a great extent with its hard, thick, grey, crustaceous thallus, scarcely differing in substance from the stone on which it grows, abundantly interspersed with minute rugged hollows, which are its immersed apothecia. CRABBE probably had this species, with *U. calcarea*, *Verrucaria rupestris*, *Lecanora atra*, and other saxicolose lichens in view when describing the appearance of his church tower overspread with

——— “The enduring foliage;—then we trace
The freckled flower upon the flinty base;
These all increase, till in unnotic'd years
The stony tower as *grey with age* appears;
With coats of vegetation thinly spread,
Coat above coat, the living on the dead.”

Many of the old oolitic altar tombs in the church-yards among the wind-blown Cotteswolds, are completely encrusted with a stratum of grey *Urceolaria*—a note of Time written down by moisture, yet more permanent than any inscription. Perhaps the most curious of these armadilloed lichens is the *Beomyces rufus*, whose granulated crust is at a little distance

undistinguishable from the rock itself, over which it widely spreads, and it would therefore almost escape notice but for its singular apothecia, which, though hard, in summer, as the stone they are upon, present in shape and colour a striking similitude to minute mushrooms, or *agarici*.

Of *Lecidea*, with its shield-like apothecia, Sir J. W. HOOKER enumerates 68 species in his *British Flora*, and we may refer to two in exemplification of it. The *L. parasema*, or common black-shielded *Lecidea*, abundant on the bark of trees, and the pretty *L. ulmicola*, whose crowded orange-coloured shields have a most elegant aspect wherever they present themselves. The Map *Lecidea* (*L. geographica*), also merits notice as a very remarkable denizen of granitic or trap rocks in mountainous and sub-alpine countries, where it spreads its bright yellow thallus in a very conspicuous manner, cracked with black lines that seem to represent the courses of rivers, and their hundred tributaries, while the black apothecia mark to the eye of fancy the position of towns or villages. On the slate rocks of Cumberland beautiful specimens may be easily detached, but in general it is not easy to unchain this vegetable Prometheus, unless, indeed, the explorer feels inclined to carry away rock and all from its high position! The summits of the Malvern hills,* in Worcestershire, pleasingly display the Map *Lecidea* in many places, and in the autumnal season, while exploring those romantic heights, the snow wreath or

* In my *Botany of the Malvern Hills*, (Published by Lamb, Malvern,) I have catalogued 248 distinct Lichens as growing upon these beautiful ridges so often bathed by the mist and rain-cloud, and in hot summers so burnt up that few of the Phanerogamous tribes can then flourish there, except the hardy Gorse, dry *Verbascum*, and succulent *Cotyledon* and *Sedum*.

the fog has frequently surrounded me ; or while the storm in its utmost artillieried fury has been sweeping over the plain below, some of those islet-like hills that dot the level country of this beauteous part of England, have shone forth splendid as meteors, wrapped in the radiance of the declining sun, unscathed by the hurricane around them, like men of purer mould elevated above the crimes and passions desolating and destroying inferior human nature.

Lecanora numbers thirty-two British species, among which *L. subfusca*, with its brown polished shields often beautifies the trunks of old ash trees ; and *L. varia* of a pale olive green, and the yolk-of-egg *Lecanora* (*L. vitellina*), distinguished by its bright yellow colour, are not uncommon on old rails, gate-posts, &c. *L. atra*, with its clustered black apothecia is a very common object on rocks, walls, and stones in church yards ; while the Crab's-eye *Lecanora* (*L. parella*), and the Cudbear (*L. tartarea*), abundantly adorn the rocks of our higher hills and dark heathy mountains. Hence their characteristic home is in stern alpine solitudes, for the Lichen tribe flourish at a loftier elevation than is attained by any other plants, as thus intimated by DARWIN—

“Where frowning Snowdon bends his dizzy brow
O'er Conway, listening to the surge below ;
Retiring *Lichen* climbs the topmost stone,
And drinks the aerial solitude alone.”

In the genus *Squamaria*, the yellow wall species (*S. murorum*), forming orbicular cracked and plaited thalli, may be referred to as a well-known example ; and the grey tree lichen (*P. canescens*), abundant on most elm trees, among *Placodium*. There are thirty-one British species of *Parmelia*, among which are

some of our finest foliaceous lichens. The sulphur *Parmelia* (*P. caperata*) grows very large, and is a conspicuous object on orchard trees, while *P. saxatilis* grows every where on trees, stones, rocks, and walls. *P. omphalodes* is also very abundant on rocks in exposed situations, especially in the vicinity of the sea, where it wholly covers extensive surfaces with its deep purple thalli.

The vicinity of old ocean is very favourable to lichenic growth, for the humid fogs for ever arising from its surface even in summer, and sleeping among the twilight woody glens through which alpine rivulets steal to the roaring monarch's embrace, nourish the species that in more inland situations would vainly struggle for extension amidst the continued burning heats of summer. Thus it has occurred to me to find more luxuriant specimens of Lichens on the rocks about Barmouth, North Wales, than I any where else remember to have seen. Here the beautiful *Parmelia lævigata* covers the massy stones on the margin of the beach, profusely covered with large bright chesnut fructification; *P. perlata* spreads to a great size upon the rocks above, accompanied by the pitchy-brown thallus of *P. Fahlunensis*, and the closely adnate lobes of the tanned sun-burnt *Parmelia* (*P. aquila*.) In the groves about *Tan-y-bwlch*, I also noticed that the trees were profusely adorned with the very beautiful orbicular Green *Parmelia* (*P. herbacea*), in exuberant fructification. Limestone rocks often display species almost peculiar to that kind of stone—as the tiled *Squamaria crassa*, and the leathery *Endocarpon miniatum*, so abundant on the rugged carboniferous limestone of the romantic cliffs of Cheddar.

The yellow wall *Parmelia* (*P. parietina*), is a species extremely common on walls and roofs, and no Lichen abounds more upon old thorns, which it often completely invests as it were with coloured gloves, and when, as is frequently the case, a little bright pink tremelloid substance, the rose-coloured *Illosporium* (*I. roseum*) bestuds the bright orange of the *Parmelia*, the effect produced is very beautiful. The inflated *Parmelia* (*P. physodes*), is a very common denizen of rocks, old pales, &c., whose interstices it covers as it were with a profuse grey beard.

Among the members of the genus *Sticta*, the Lungwort (*S. pulmonaria*), is very remarkable, investing trees in sub-alpine countries with its large green fronds, curiously pitted and reticulated, from whence the name has arisen. The pitted *S. scrobiculata* is also not uncommon among rocks, which it closely covers as with an extensive glaucous-hued cloak of many folds.

The genus *Collema* has thirty-three species, all of a skinny or gelatinous nature, of which the Bat's-wing Lichen (*C. nigrescens*), not uncommon on the damp trunks of trees, may be adduced as a specimen. These dark foliaceous and plaited substances are generally very obscure except in wet weather, and are, no doubt, often passed by the unobservant eye. They are, however, very curious, for, in fact, on the commencement of rainy weather they spring up from their unnoticed retreat like new creations.

Peltidea almost always appears upon the ground on mountains and heaths, and is easily known from its size, lurid aspect above, white beneath, and its brown peltate apothecia, resembling finger nails. Several varieties occur, but *P. canina* is the most common.

P. venosa, and *P. aphthosa* are very beautiful, but these only occur in mountainous districts.

Gyrophora and *Umbilicaria* have a very singular appearance, and might almost be mistaken for large flakes of soot, were it not for the central root by which they are fixed to the rocks where they grow. The *Cetrariæ* are northern or alpine plants, though the glaucous *Cetraria* often adorns heaths and stony places with its wide spreading glaucous-grey thalli, in spots where the white-rumped Wheatear is sure to be seen flitting about. *Roccella* is a maritime Lichen, which yields a most valuable dye.* *Borrera ciliaris et tenella*, *Evernia prunastri*, *Ramalina farinacea*, and *Usnea plicata et florida*, either together or in separate divisions, form those hoary flakes, fringes, and pendent floccy masses, which in winter and early spring give such a spectral aspect to the branches of the trees they clothe;† as if nature had robed them with a permanent hoar frost—

“There fibrous, floating in the air;
Here—hoary, curl’d, and light;
Like tresses fine of maiden’s hair,
Or hermit’s lock of white.”

To some of these Lichens, more particularly, per-

* Many of the crustaceous and foliaceous lichens might be used in dyeing processes, but the *Roccella* or Orchell, brought from the Canary islands, is most valued, and has been most employed. The price of this in the market is now about £290 per ton, and at particular times it has risen to nearly £1000!

† This is an appearance noticed by many poets, but with a want of botanical exactness, the grey lichens producing it are termed erroneously Mosses—thus Dr. DARWIN mentions—

“The moss-grown antlers of the aged oak;”
and SOUTHEY, in a beautiful sonnet descriptive of Winter, makes the same mistake— “A wrinkled crabbed man they picture thee
Old Winter! with a ragged beard as grey
As the long moss upon the apple tree.”

But this “long moss” is certainly the pendent lichen *Usnea plicata*.

haps, *Evernia prunastri*, the name "Death-Moss" has been popularly applied, as denoting that the term of the tree's healthy endurance has arrived when these pallid locks, assimilating to the grey hairs of man, appear upon the bark—hence it is said, such timber should fall. *Ramalina scopulorum* often appears very copiously upon maritime rocks, to which its stiff glazed pendent thalli give a most remarkably grizzled aspect, visible from afar. The Ash Ramalina (*R. fraxinea*), often depends from old ash trees in fronds five or six inches long, these "hoary locks" giving a most picturesque aspect to the weather-beaten veterans, pitted and reticulated as they are, and covered with copious apothecia. The weather side of a range of paling is also often made a conspicuous greybeard by the farinaceous, stringy, and other Lichens. The broad-leaved Ramalina (*R. pollinaria*), when occurring in profusion, gives a similar tattered appearance to old elm trees and neglected or unused barn doors.

But there are other families of Lichens that principally affect the bare ground, moors, and heathy mountains, which, in the absence of other vegetation, they cover with a white or brown crispy robe. Such is the celebrated Reindeer Lichen—

"The *wiry moss* that whitens all the hill,"*

whose intricate tufts adorn the lofty mountains of every part of the world, and which in the winter forms nearly the entire support of those herds of Reindeer that constitute the sole wealth of the Laplanders. No vegetable, LINNÆUS states, grows throughout Lapland in such abundance as this, especially in woods of scattered pines, where for very many miles together the

* CRABBE.

surface of the sterile soil is covered with it as with snow. How beautifully on the maritime rocks of Pembrokeshire this snow-white lichen contrasts with the rich golden lacinated thallus of *Borrera flavicans*, with which it grows intermixed; while the forked *Cladonia* and the coral-like *Isidium*, contribute to clothe the otherwise barren steeps, with a garb which even poetry would fail to imagine in the beauty and delicacy of tint and form that it presents.

“You are enthusiastic in your Lichens (*likings*),” said a fair punstress on one occasion to me, as on turning over part of my herbarium before some botanical friends, I was descanting on their variety of form and hue. And truly I may be so, for many glorious imaginings—many never-to-be-forgotten excursions do I owe to them. They have tempted me on bleak Plinlimmon, where I have gathered the silvery *Stereocaulon*; they have led me panting, yet enraptured, winding my course among maritime rocks all day till I was as brown as the sun-burnt *Parmelia* that I scraped from the granite ridge; how oft have they lured me to gather the blistered *Umbilicaria*, the wiry “Rock Hair,” or the pointed sad-coloured *Cornicularia*, on the syenite of Malvern, the sooty *Sticta* and fringed *Gyrophora* upon Snowdon and the Arenigs, or the curious Socket *Solorina*, whose apothecia is buried in round pits sunk in the thallus, amid the water-swept ravines of the Glyder Vawr. Still I seem to see the horrid precipice of Craig-y-Deryn, near Tal-y-Llyn, all riven and blasted, with its tottering crags, pointed peaks, and broken ledges, stained with the ordure of the myriad screaming sea birds that haunt it, and with the bearded lichenic growth of

centuries bristling its face, to which I pilgrimaged from Cadir Idris, not without emotion, and from whence I now see in my herbarium the pitted *Sticta* and the brown *Nephroma*, still ever as I gaze recalling the sensations with which I gathered them. Up that frightful cliff, said my informant, as I turned to take my farewell of its awful form, two youths were climbing where you just stood, but they were seeking bird's eggs. They were half way up its scarcely practicable ascent, when a thunder storm suddenly swept on, and clouds shrouded them from view. Awed by the elemental conflict, they were unable to advance or retreat. Long they clung one above another to the dreadful precipice, but at last, blinded by lightning, one fell, and at once paid the forfeit of his life. As the storm abated, the other shrunk sadly from his high position, slowly retrograded, and escaped. I turned from Craig-y-Deryn, or the Cliff of Birds, with a sigh, and proceeded on my course among the mountains.

But it is among the wildness of such localities that nature ever delights to place her favorites, for the stormy blast that shakes the mountain, and the pouring rain that floods the valley, merely increase the facilities of these plants to grow, extend, and perform the economy for which they were designed. The mosses retain the falling water to ooze it forth in the dribbling chrystal drops of summer, and the Lichens spread profusely to form those tufts upon the uplands, which show their tips of crimson no where else.

“Ah me! what lovely tints are there!
Of olive green, and scarlet bright,
In spikes, in branches, and in stars,
Green, red, and pearly white;

And cups, the darlings of the eye,
So deep in their vermillion dye."*

The objects thus pleasingly alluded to are the Cup-lichens, or *Scyphophori*, whose multifarious varieties, whether seen upon the sandy heath, the silent mountain waste, or upon the humble cottage pales, like brown fairy goblets sometimes one within another, cannot fail to awaken in the Botanical Explorer, admiration, if not gratitude to that Power who has made all things beautiful, that solace may be found in his works to counterpoise the baleful effects of those passions that desecrate the moral world, and soothe those pangs that still ever accompany the struggles of man in the physical one.

* WORDSWORTH.

EXPLORATORY NOTICES FOR NOVEMBER.

“Where late the wild-flower bloomed, the brown leaf lies.”

GRAHAME.

WITH this month it would almost seem that botanical exploration *must* terminate, and of course it is so with *phanerogamous* vegetation, while rainy or foggy days often involve the whole country in a continual *drip*, that renders the forest shades no enviable place of meditation. Yet, there is no pause in the operations of nature, and when a fine day *does* occur, how exhilarating to climb the heathy hills, where the green Cup-mosses and silvery Rein deer Lichens are putting forth their scarlet or brown tubercles, while, perhaps, on some old weather-beaten stump a *Lecidea* appears in fine fructification, never observed before. From the Holly-trees, now showing their ruddy berries, and assuming an importance in the sylvan scene they did not before possess, hosts of Fieldfares flit as if thrown up casually into the air, while deeper within the wood is heard the harsh scream of the Jay. Below the eye the level country seems wrapt in a cold, dull, impenetrable mantle of fog, a calm but desolate sea of vapour; yet above this stratum the sunbeams light up the hill-side in radiance, and glance upon the green or brown Ferns, and, especially where, amidst the intricacies of the crisp bracken, some lonely autumnal flower—perhaps even the Harebell, lingers as if it hoped to pass scathless through the coming brumal rigours.

As the tempest of every night now makes continual progress in clearing of its frondage any hesitating tree that had been permitted thus long to retain it, the landscape assumes new features in many directions, and often, indeed, discloses beauties to the eye, unobserved or unexpected while the cloak of summer leaves spread so thickly over the country. How often at this period have I been struck with the picturesque aspect of the old timbered farm-house of the true hospitable old English times, with its peaked gables, and wide, lofty, turret-like chimnies, now fully obvious among the leafless orchards around it, and often accompanied by its sober, unvarying companion, the battered but enduring Yew, recalling a thousand recollections of old times — and then, along side of them extend, frequently, those abbey-like barns, whose timbered ribs and lofty doors are all thickly encrusted with the sacred cryptogamic crust of centuries, like emblazoned letters in time-worn volumes. There is, alas, no beauty in the *modern brick* barns, and but few plants to be obtained from them.

The denuded trees now exhibit palpable signs of the approaching season in the *Mistletoe*, with its white berries prominently nestled in many of them, and the trees on which this curious parasite occurs, may at this period be more advantageously observed than at any other time. A stroll among the mossy labyrinths of the wood may conclude the explorations of the year. Here all is silent and mournful, the ground thickly covered with a soft yielding carpet of accumulated leaves, while the tall trunks of the forest trees wave with a thick crop of *Evernia prunastri* and the *ramaline*, and other frondose and filamentous lichens,

like the deserted columns of a ruined temple ragged with weeds.

—————"The Hawthorn there,
With moss and lichen grey, dies of old age." *

Yet here, occasionally, the eye of research is rewarded by observing some rare and curious *fungus*, as the *Agaricus odoratus*, scenting the shade, the huge *Polyporus squamosus*, its lobes piled high upon each other, or the singular varnished grotesque *P. lucidus*, besides numerous more minute ones. We have occasionally spent an amusive hour in proking with a stick among the damp fallen leaves in a coppice. Numerous curious and even elegant *Fungi* were thus disclosed to view, such as the Beech-mast and other *Pezizæ*, *Craterium pedunculatum*, minute coloured *Trichiæ*, &c. In this way an industrious mycologist may find food, especially with the microscope, to employ many a dreary winter's day.

But a pelting storm breaks in upon the studies and delights of the exploring botanist; and beneath some ivied oak, projecting brambly bank, or bower of wild feathery Clematis, he is forced to seek a temporary shelter as the howling storm vents its fury upon the darkened landscape. It breaks in pealing uproar upon the forest, and the lofty branches creak and groan around—the deluge falls in one continuous splash upon the soaked leaves—but lo, a break of light! a sudden impulse hurries the dark squadrons far on, and a brilliant iris starts up irradiant at the foot of the pleased shelterer.

* GRAHAME.

WILD FLOWERS OF DECEMBER.

CHAP. XXVIII.

GLANCE AT THE BRUMAL ASPECT OF NATURE — THE MOSSES IN THEIR NUPTIAL HABILIMENTS — SIMILE IN RELATION TO THEM—THEIR BOTANICAL CHARACTERS—BEAUTIFUL ASPECT IN THE WANE OF THE YEAR—POLYTRICHUM, AND OTHER FAMILIES — THE SPHAGNA OR BOG-MOSSES — THEIR ECONOMICAL HISTORY AND DISTRIBUTION.

“ When on the barn’s thatch’d roof is seen
The *Moss* in tufts of liveliest green,
When Roger to the wood-pile goes,
And, as he turns, his fingers blows,
When all around is dark and drear,
Be sure that CHRISTMAS-TIDE is near.”

Christmas, a Masque for the Fireside.

————— “ankle deep in moss.”

COWPER.

IF we felt disposed for a lounge upon the sofa at this chill and vapoury season, instead of keeping a good “look-out” to the end of the chapter, we might now abruptly drop the curtain upon all further research, by exclaiming with THOMSON—

“ How dead the vegetable kingdom lies.”

But though poets, with a superficial glance, may make such an exclamation, the botanist can by no means allow the strict application of such language to be

correct; for if the umbrageous multitude of leaves that lately decorated the forest have fallen to the ground, yet there are a host of "little plants that lowly dwell,"* that far from being dead, take advantage of the prevailing humidity to put forth their frondage and fruit, and assume a visible importance they made no pretensions to before—among these, shining with brilliant viridescence as *signs of approaching Christmas*, the beautiful tribe of Mosses appear, called in botanical language *Musci frondosi*.

Even in summer, the wanderer who has penetrated into the deep recesses of the woods, seeking shelter from the burning refulgence of noon, has oft blessed that mossy carpet softer than velvet yielding to his tread, which has cooled and refreshed his tired feet. The mountain Rambler, wearied with the toil of ascending slippery barren rocks, parched and burning with reflected heat, turns from his path along the dry ravine to where the plashy springlet oozing from its mossy bed, diffuses around its green cradle delicious coolness, and invites to mental and bodily tranquility within its sequestered recess. Then even the uninquisitive poet looks out for his "*mossy cell*," and, though shrinking from botanical initiation, still exclaims with SHENSTONE—

"Beside some fountain's *mossy* brink,
With me the muse shall sit and think."

But he should be dragged to the "moss-fringed stone" in winter, to behold this fairy tribe in all their delicacy and beauty, and SPENSER, indeed, has not altogether forgotten the picturesque aspect they put on at this season, when he thus apostrophizes in his characteristic *Shepherd's Calendar*:—

* SPENSER.

“ You naked trees, whose shady leaves are lost,
 Wherein the birds were wont to build their bowre,
 And now are *cloth'd with Moss* and hoary frost,
 Instead of blossoms, wherewith your buds did flowre ;
 I see your tears that from your boughs do rain,
 Whose drops in drerie ysicles remain.”

LINNÆUS's vivid description of the Mosses, penned with his usual imaginative power, has never yet been surpassed. “ When,” says he, “ all things around us languish and sleep, when the streams are frozen, the groves silent, the fields hidden with a covering of snow, and sorrow every where apparent, as the face of nature is pale and sad with the image of death ; then the Mosses present themselves amidst the ruins of vegetation, and mantle the stones and rocks with a silky vesture glowing with the brightest colours.”

The most incurious observer must have noticed that as the pale descending year hastens to its conclusion, the roof of almost every thatched shed, barn, or outhouse, assumes the most vivid green colour from the various *Mosses* that have domiciled upon its slopes ; every wall top glistens with their brown or yellow seed-vessels and purple stalks, while the driest tiles, stones, or bricks, are dotted with the grey cushion-like tufts of the little *Grimmia pulvinata*, whose capsules or *thecae* are buried amidst the leaves that rise up, each furnished with a long white pellucid hair. CLARE has noticed these “ flowers ” of the Mosses, in his observant Poems—

“ Even Moss that gathers on the stone,
 Crown'd with its little *knobs of flowers* is seen.”

In hot weather the Mosses become crisped, curled up, discoloured, and apparently lifeless ; but they imbibe moisture with such rapidity, that the slightest shower

restores their pristine freshness—thus emblematical of the power the slightest change of circumstances has upon the condition of man himself. See the son of genius toiling on his up-hill course, and vainly craving that single drop of patronage that would invigorate all his powers; but it is denied him, and like the parched moss he shrinks into obscurity and neglect. But should the golden shower fall at last, how suddenly he starts up into activity and fame—drinks up unsated the vivifying stream, expands all his latent powers, and at a single bound overleaps the unpitied wrongs of years, just as the parched moss rises from its long sleep, to sprout and fructify amidst the teeming moisture.

Mosses are not furnished with conspicuous flowers, but they are said to be *in fruit* when certain brown cases appear among them analogous to the capsules of the phanerogamous tribes, and generally elevated on long stalks. These cases are called *thecæ* or urns; their summit is crowned with a *calyptra* or veil, which covered the theca entirely before the latter lengthened, tore the calyptra from its support, and bore it upon the tip. When the calyptra has dropped off, the urn is seen closed at its mouth by an *operculum* or lid, and as the whole becomes mature the lid drops off, disclosing in most cases an elegant *peristome* or fringe, often double, which protects the mouth of the theca, and the teeth of this fringe varies in number from four to sixty-four, but in all cases is some multiple of *four*. When at last the minute *sporules* or seeds within the urn are fully ripe, the fringe withdraws itself, becomes reflex, and allows them to escape into air to be borne upon the wind to rise up as young plants wherever

Nature may require their services. But besides the fruit that every kind of moss exhibits, some species bear leaves spread into a starry form; among which lie a number of cylindrical whitish-green bodies, transparent at the point, and filled with a cloudy granular matter. These have been considered as *anthers* by some botanists, while the cluster of greenish pipe-like filaments that precedes the appearance of the thecæ were described as *pistils*. SPRENGEL, however, overturns this opinion by stating that he has seen the supposed anthers drop off, and strike root like *gemmae*, or off-set buds, which he supposes they are; still it is remarkable that the star-bearing plants never produce urns, nor the urn-bearing stars. Dr. LINDLEY considers that the *calyptra*, *operculum*, and teeth of the *peristome* of mosses are all modified leaves, and that therefore the urn is more analogous to a *flower* than a *seed-vessel*. However this may be, the urn at any rate contains the minute dust or sporules from which young plants germinate, and this has been proved by Mr. DRUMMOND, who succeeded in raising more than thirty different kinds of mosses from seed. Mosses have been arranged in genera, according to the presence or absence of a fringe at the mouth of the urn, the number of its processes, and whether single or double. I shall here only advert to a few of the more remarkable, referring the enquirer to HOOKER and TAYLOR's *Muscologia Britannica*, where all the mosses of Britain are described, and many of them figured. According to LINDLEY, about eight hundred species are now known, but probably a considerable number remain to be described.

Whoever enters upon the study of these minute

yet beautiful structures, must not imagine that his researches are to be confined wholly to the days of summer; even in mid-winter, when the sun, blazing for a moment on his eastern pillow, sinks oppressed amidst the rhimy vapours that spread on all sides from the dripping woods and saturated fields; when the north-westerns hurry amongst the creaking, splitting, and denuded boughs, scattering the last leaves upon the paths all slimy with moisture and rotten foliage; when mud, sludge, mire, and puddle combine in the romantic rural lanes with ruts of depth profound, whose treacherous edges sink mid-knee deep at once in the vainly-attempted passage; when it seems cold enough to ensure a frost, and yet so gloomy, foggy, and tempestuous, that the black wood already in idea echoes to the pealing rain, and the cawing crow is the only visible inhabitant of the eclipsed day—even in these decembral hours of gloom, the *muscologist* must be abroad to behold the objects of his delight in their perfection. Nor will it do merely to “look-out” in the shrubbery for a moment, and run in like a cat from the drip of the trees;—the *mosses*, even at this time in their brightest luxuriance in winter, must be sought for on the spongy sward of the bleak extensive moor, or the “moss-clad stones” swept by the bitter mountain blast, or in the wildest depth of humid woods, midst

—————“ Wither’d boughs grotesque,
Stript of their leaves and twigs by hoary age,
From depth of shaggy covert peeping forth
In the low vale, or on steep mountain side.” *

For had their oozy foliage and plumose stems, voices

to mingle with the weeping patter of the woodland rill, truly might they sportive cry

“Where we are it is no place
For a lazy foot to trace ;
Over heath and over field
He must scramble who would find us ;
In the copse-wood close conceal’d,
With a running-brook behind us.”

Here we go, then, dash at once upon beds of silken velvet *Hypni*; or the *Dicranum scoparium*, covering the bank with its long pecteniform foliage, offers a seat of unrivalled softness—a thousand moss-encrusted stalwart forest arms form around us a labyrinth of dim melancholy obscurity; so with the “hoary gown” about us, we may at once *look* the character of the hermit, whether of MILTON, PARNELL, or any other poet, in strict keeping with the occupation allotted by COLERIDGE in his *Ancient Mariner*, to the

“Hermit good, who lives in that wood
Which slopes down to the sea.

* * * *

He kneels at morn, and noon, and eve—

He hath a *cushion plump* ;

It is the *moss that wholly hides*

The rotted old oak stump.”

Having thus, under the guise of botanical searching, introduced our friends into this gloomy forest recess, we might here inflict a long moralization with impunity; but we shall imitate Nature in her beautiful contrasts—like the luminous vapour’s march along the mountain—and now exhibit a beam of brightness from a poet who was no botanist, but who, as a close observer of nature, images his love as “a lovely little flower” in a cave, by which I presume he intended a beauteous moss, and, thus circumstanced, defies the

“raging winter.” Tempted alike by the literal and the symbolical flower, let the neophyte resist the invitation I give him to search amongst the caves if he can!

“ Without my love, not a’ the charms
O’ Paradise could yield me joy ;
But gie me Lucy in my arms,
And *welcome, Lapland’s dreary sky.*

My cave would be a lover’s bower,
Though raging winter rent the air ;
And she *a lovely little flower,*
That I wad tent and shelter there.” *

One of the most beautiful of the mossy families, and very conspicuous in moist woods or on mountain sides, is *Polytrichum*, nearly all the members of which have golden-brown hairy *calyptra* or caps to their urns or capsules, which gives them a singularly splendid appearance, and hence *P. commune*, the glory of our mossy woods, has been called Goldilocks. It is the largest of the tribe, and where it abounds, door-mats, beesoms, and brooms are formed of its stems, and as furnishing bedding to the Laplanders it has been highly celebrated.

With this specious family may be contrasted the genus *Phascum*, whose capsules scarcely equal the size of a pin’s-head, and without lid or fringe, fade almost from unassisted vision ; or the curiously-minute and elegant *Gymnostomi*, without peristomes, one species of which HASSELQUIST found so abundantly on the walls of Jerusalem, that he considered it the “hyssop springing out of the wall” that Solomon was acquainted with.

The *Tortulæ*, seen very frequently on walls, are

distinguished by the spiral twisting of their thirty-two teeth, which gives to their capsules the appearance of so many little torches, from the bright yellow colour of the fringe. *Tortula ruralis* is a large species whose leaves end in long white hairs, and which often densely covers thatched roofs. The *Encalypta* has its calyptra exactly fashioned like an extinguisher; that of *Orthotrichum* like a fool's-cap studded with hairs: while the round fruit of *Bartramia pomiformis* deeply furrowed, is peculiarly elegant seen amidst its light green tufts on sandy rocks. Almost every one who has walked in woods where charcoal has been burned, or trees fallen, must have marked masses of little green or orange-tinged fruit bundled together, with scarcely any foliage, luxuriating on the round bare plots thus left by the woodmen. This is the *Funaria hygrometica*, a singular moss that delights in charred ground, which it is thus the first to gladden again with vegetation, often with a purple-stalked companion, *Didymodon purpureum*.

The *Bryæ* are a very numerous tribe of the mosses, amongst which *B. ligulatum*, with its long tongue-shaped leaves and brown scales at the base of its stalks, presents the appearance of a miniature Palm; while the reticulated leaves of *B. punctatum*, an inhabitant of marshy spots or mountainous rivulets, have a very beautiful appearance. The little *Bryum argenteum*, often seen on rocks or old roofs, is very palpable from its peculiar silvery aspect, and *Bryum cæspititium* is frequent upon stones in subalpine spots generally with tufted masses of green conspicuous fruit. Every where on banks, old trunks of trees, walls, and in the deep recesses of shadowy woods, appear the

wide-spreading, soft and flossy mosses belonging to the *Hypnum* tribe, distinguished by their double *Peristome*, each consisting of sixteen teeth, filiform processes being frequently placed between the segments of the inner fringe. There are sixty-seven British species of *Hypnum*. Many of these combine to beard old walls and ruins with a reverential aspect that tinges them as if with an artistic pencil,—
So looks

— “Th’ embattled tower o’ergrown with *bearded moss*,
And by the melancholy skill of time,
Moulded to beauty.”*

The genus *Splachnum* presents some of the rarest and most beautiful species known in the world. *S. vasculosum*, with its globular rich brown shining capsules, is the queen of British Mosses, but she is only “at home” on Ben More and the Breadalbane mountains in Scotland, at three thousand feet elevation. By far the most important though humble ministers in the economy of Nature are the *Sphagna*, or bog-mosses, whose hoary tresses clothe the misty mountains to such a vast extent, forming those turbaries within which the mightiest rivers are nursed in their flossy cradles, fed by the waters imbibed by them from the flying vapours, and gently led with flowing urns to the mouths of those ravines down which they plunge in foam and spray, hurrying along their loud-voiced waters to grace and fructify the plains beneath. What botanist is there whose heart does not bound within him at the recollection of those *bogs* upon whose margin or within whose plashy verge

“Where fairy water-breaks do murmur on
For ever,”—

he has gathered some of his brightest and most cherished favourites! There, whiter than snow, waves the silken Cotton-grass; the red-leaved Sundew shines revealed upon the ermine moss on which it floats; the delicate Rose-pimpernel almost immersed, just shows its roseate flowers; and the Bog-violet (*Viola palustris*), or the fringed petals of the lovely *Menyanthes*, charm the gazing eye amidst a host of delicate Carices. But the bog-moss itself is beautiful, in its several varieties—of a lurid green as it floats in the water, pure white on the edges and surface of the morass above which the screaming plover wheels, and of a beautiful rose-colour when the moisture has altogether left it. Ah! how often have my wandering feet trod delighted on the soft snowy bog-moss—on the blue-topt Wrekin where I first gathered among it the blue greasy-leaved *Pinguicula*—on the western descent of oft-visited Malvern—mixed with the lowly Cranberry on the borders of Bomere's fair watery expanse in Salop,—with the fairy ivy-leaved Bell-flower on the margin of Llyn Teivy and its sister lakes—where Gowrog's lonely pool and gray stones, near St. David's, receives amidst its barren wildness a few stray shreds of beauty from the golden corolls of the *Hypericum elodes*, and the silver flowers of the floating *Alisma natans*, amidst its dreary marshy waste—on the black morasses of Cardigan, wedded to the beauteous pink-flowered *Andromeda*—on the shores of Pembroke, lulled by the murmur of the sea amidst the fragrance of bushes of Bog Myrtle—or

“Amid the heart of many thousand mists,”

where the young Severn frets timorously in silver lines shrouded in the scowling passes of drear Plin-

limmon, hid in perpetual clouds, and blown by never-ceasing blasts.

The destruction and renovation perpetually taking place throughout nature is apparent in the history of the Mosses. An old decrepid forest becomes decayed, moss-grown, and is at last overthrown by the winds. The rains fall upon its remains, and they are covered and obscured by standing water. Here the *Sphagnum* or Bog-moss begins to vegetate—the waters are by degrees absorbed, and a peat-moss finally formed, from whence the black timber and half-consolidated mosses are dug out, dried, and used for fuel. Thus the bog-moss becomes the instrument of its own destruction, it forms a pabulum for other plants and flowers to grow in, and at last, by the operation of draining, is converted into fruitful meadow land, or again waves with forest-trees as it did hundreds of years before.

Wherever the atmosphere is moist, there *Mosses* grow in every part of the world, though more common in temperate than tropical climates. They are the first vegetation that begin to dot any new soil with verdure; careless of snow or rain they push out their leaves and capsules in the most tempestuous weather, and even treasure in the former as materials for fresh soil, the sandy or quartz particles brought down with the rain. They plunge into the deepest ravines, forming those “shaggy banks,” which are the delight of sylvan wanderers; they rise upon the alps of Germany and Switzerland to the height of 5,500 feet, and amidst the eternal snows of Spitzbergen or New South Shetland, are still seen struggling for existence. Trifling and insignificant as they

seem, they have many uses in Nature's economy;* the birds construct their nests of them, they protect the roots of larger plants from cold, and preserve, amidst their dense tufts, myriads of minute insects, without which provision, doubtless, many birds would perish in the winter months. Everywhere, moors, woods, rocks, fields, and the banks of streams and marshes abound with them, so that they in fact constitute no mean portion of the vegetable clothing of the globe.

"It is this universality of the mosses," observe the authors of *Muscologia Britannica*, "this disposition of them to grow everywhere, even in such spots as are incapable of producing any other plants, that has much contributed towards making their study a favourite occupation with us. Upon the summits of our highest native mountains,—upon the most lofty alps of Switzerland, and the still more elevated ones of Savoy and Piedmont,—upon the morasses and volcanic tracts of Iceland,—have we received amusement and instruction, though the inexperienced eye could discover nothing more than seemingly barren

* "God and nature," says Linnæus, in his *Acad. Amæn.*, "have made nothing in vain; and posterity may discover as much in *Mosses*, as of utility in other herbs." Mosses are doubtless the great ministering assistants of nature in the creation of *soil*, the constituents of which they imbibe from the atmosphere, and accumulate in masses about their roots, thus in a short time forming a nidus for larger plants even upon the barest rocks. This may be easily tested by any careful observer. In March, 1842, I took from the tiled roof of an out-building at Malvern Wells, a tuft of the *Bryum capillare*, a moss very common on walls and rocks. This tuft, with the black soil collected at its base, weighed *six ounces*, and on carefully extracting the mould by repeated washing, the actual vegetation that remained did not amount in weight to *one ounce*—the moss having thus, on a bare surface of tile, upon which it had been cast by wind or rain, not only subsisted itself, but amassed by its retentive qualities a rich *humus* above five times its own weight.

wastes." Nor is the pursuit of these vegetables confined to the summer season alone, as is the case with most other departments of botany. The Muscologist needs not to wait for the heralds of Spring to announce to him the time when he may set out, with a prospect of success, upon *his* excursions. With the Moss it is a continual spring; a very great number of them are in the highest state of perfection in the middle of winter, and there is no season but will afford some or other of them in a state for examination and study. A great advantage in the study of Mosses is that they are more easily preserved, always continue green and beautiful, and may be at any time revived on the application of water. Thus they appear to the eye as beautiful images of the past, yet like an unappropriated thought, *standing ever ready* to be developed into the active and sensible present. They are, in fact, what the Amaranth was only fabled to be—imperishable!

WILD FLOWERS OF DECEMBER.

(CONTINUED.)

CHAP. XXIX.

LAST LOOK-OUT UPON THE ASPECT OF VEGETATION —
APPEARANCE AND ECONOMY OF THE JUNGERMANNIÆ—
A DECEMBER MORNING — IVIED TREES, SHRUBS, AND
BERRIES—SIMILIES APPERTAINING TO LINGERING FLOW-
ERS—EVERGREENS OF THE SEASON—REFLECTIONS CON-
NECTED WITH BOTANICAL INVESTIGATION — WINTER
PICTURE OF FALLING SNOW UPON THE BARE BOUGHS
OF DECEMBER, SHROUDING ALL VEGETATION—CONCLU-
SION.

“ Fled is the blasted verdure of the fields ;
And, shrunk into their beds, the flowery race
Their sunny robes resign.” THOMSON.

“ Bring the last December rose
Frosted o’er with wintry snows,
Let the fading petals fall,
O’er the year’s funereal pall.

From the wood some oak-leaves bring,
That were green in early spring ;
Scatter them about the bier
Of the now departing year.”

Christmas, a Masque.

THE “ last December rose,” alluded to in the above lines, must of course be a Chinese, or monthly one, some of which continue blooming, trained against

walls, windows, or trellis-work, even amidst falling snow ; but there will scarcely be one left by the last day of the month. The “ ruler of the inverted year,” now makes steady progress—the meadows in early morn are white with hoar frost, destroying the last surviving plants and flowers that might have hoped to escape the storm ; then, as the feeble rays of the sickly sun tell upon the crisp grass, rising vapours hang cowering upon the dank meadows, or gloomy arable enclosures, till dampness is condensed upon all created things, rain is precipitated upon the leafless groves in pealing torrents, muddy brooks pour their red rippling waters over the plain, and the swelled rivers break their bounds, and mournfully splash upon the bending hollow pollard willows, ranged in broken ranks upon their borders. As the red inundation still rises, the spoils of autumn are borne upon its waters, and a black line of leaves and sticks marks the current of the river, that swiftly carries onward to the ocean the once gay verdure of the woods, now dark and rotting, as the joys of the past are themselves swept remorselessly away.—So the current of life bears all things along.

The garden and shrubbery now presents its most desolate aspect, for rampant weeds struggle with the stalks of dead annuals ; all are dying, or so intermingled with fallen foliage and wind-driven fragments, as to *appear* dead, and as yet there is no evident symptoms of revivification—

“ No mark of vegetable life is seen,
No bird to bird repeats the tuneful call,
Save the dark leaves of some tall evergreen,
Save the lone redbreast on the moss-girt wall.”

And yet, as the rays of morning feebly strike upon the tall columnar forms of elm, or ash, or beech, or oak, which seem marbled with rings of white, or grey, yellow, or green, some faint traces still present themselves of continuous vegetation, though in a diminished form; and if the eye strictly scrutinizes these verdant tufts and mosaic markings on the various barks, a host of what at first sight appear to be minute flowers, are seen rearing their tender forms from purplish brown imbricated fronds, or bidentated leaves of the tenderest green. These are the urns or capsules of the *Jungermannia*, a distinct race from the mosses, though closely allied to them in habit, which part into four divisions, scattering around their brown sporules of dust, intermixed with minute chain-like bodies, whose precise use has not hitherto been certainly defined.* The urns of the *Jungermannia* mature rapidly in damp weather, and some of them are elevated upon such transparent stalks, that they appear to simulate the Gordian worms often met with amidst their tiny foliage.

Bogs, mountains, and damp rivulet sides, are the habitation of the *Jungermannia*, where they flourish in perfection, and no doubt contribute, by their spongy retention of water, to form those chrystal-dropping fountains, that delight the eye and refresh the lips of the weary traveller, who pauses, half worn out with toil, amidst the dim overshadowing glens into which he has penetrated. Even the rocks on the sea shore are often covered with the armour-like foliage of these minute plants, which of a sombre purple, finely con-

* In the Exploratory Notices for January, I have mentioned what appears to me the purpose they are designed for.

trasts with the golden, or cream-coloured lichens amongst which they grow, thus contributing to the formation of those harmonious tints, that, painted on the sombre weather-worn brow of the impending maritime cliff, inspire glorious imaginings in the mind of the true worshipper of nature. Thus, nothing is made in vain;—and to behold in the dead of winter, these curious plants spreading their labyrinthal mazes profuse with auburn fairy urns about the dark boles of the patriarchal trees of the wood, unquestionably inspires admiration, and leads the contemplative mind to the consideration of that power whose eye never sleeps, and whose wonder-working finger is always tracing out some latent object, as if to extort astonishment and praise from the thoughtless and unenquiring. None of these plants are in the slightest degree hurtful, and many of them possess a peculiar fragrance, which makes the “fine-nosed herbalist” sensible of their presence, when he is perhaps about to cross the rustic bridge of some bubbling brook, chafing the round stones among which it gurgles, while perhaps, the blue kingfisher darts, like an arrow, across the water, to hide among the platted roots of the old alder; or the yellow wagtail quivers its bright-stained plumage on the little pebbles where the waters undulate with simmering bubbling.

Of the lowly *Jungermanniæ*, above two hundred species have been enumerated; and as much labour and microscopic research must have been required to elucidate their history, the late Professor BURNETT has justly observed, that “the study of these plants has forcibly struck me as being a more decided proof of a *disinterested love of science* than the investigation

of other richer, and more directly rewarding tribes." At all events, if there be any thing worthy or exciting in the perusal of any production of *human* genius, it must be self-evident that there is something still more worthy, more exciting, and of a purer nature too, in the investigation of even the minutest emanation from the wisdom and energy of the *Divine* mind. With this sentiment, then, the botanist can satisfactorily answer any contemner, if such there be, of his exploring, innocent, and unambitious pursuit.

But now for a final glance at the out-of-door aspect of the features of the waning year. For one brief day December glooms subside—lines of white stratified clouds are pillowed upon the horizon, and the sun spreads forth his beams from a cœrulean sky upon leafless groves, sullen hills made rusty with the faded brake, dull purple patches broken by the plough, and wide green commons, whose hundred brimfull pools without a weed upon the surface, gleam and sparkle in the shadowy landscape, where the rays shift and glance, and chase each other, as if exulting at their temporary emancipation from the deep dungeon of the rifted clouds. Some tracts, too, of vegetable beauty appear, where the *glossy ivy* has encased a lofty pear-tree, riven pollard willow, or—

————— " the moss-grown oak,
Tenacious of its leaves of russet brown."

Ivy indeed is the robe of honour with which time loves to invest the objects that have become maimed in his service, and aged trees thus covered stand out in winter as "green-robed senators" glorious and venerated in their decrepitude. So rapine and desecration is hushed up and concealed by the enveloping

Ivy that covers the char of fire and the indentation of rage, and the naked ruin that stood sullen with desolation is taught to smile in romantic beauty with ivy-mantled walls and turrets, inspiring only pleasing or pensive thoughts—like some rankling injury that religion and charity have combined to cover with good deeds. Thus wherever the Ivy twines it conciliates the past and effaces the memory of wrong, it gives a pictorial grandeur to destruction which is a redeeming feature in itself, and charms the fancy to be satisfied with the present scene. A modern poet has well depicted the honourable garb given to ruin by the Ivy's ever verdant tapestry!—

“Every where the torn and mouldering past
Hung with the Ivy. For Time, smit with honour
Of what he slew, cast his own mantle on him,
That none should mock the dead.”*

The shrubbery, now, with spiry fir, dark pine, and graceful cypress, looks refreshing to the eye, mixed with the sienna-tinged foliage of the retentive beech, while high in air, the round bushy *mistletoe* once again exhibits its strange flaccid leaves, and white mirth-inspiring berries reminding of the approach of merrie Christmas. Here and there the orange-coloured clustered berries of the bryony deck the hedge, and occasionally a deep-indented elder-tree, with neglected umbels streaming in the air like the raven tresses of some love-lorn and bewildered maniac damsel. “*Peep, peep, peep,*” rings in the ear, should we approach the mossy edge of the dark frowning wood, from a troop of little long-tailed “*Mumruffins*,”† following their leader in gliding order among the budding branches; and in spots like this, the wild

* “The Roman,” a Poem. † The Long-tailed Tit.—(*Parus caudatus*.)

Clematis or traveller's joy, often clusters, with its white plumose seeds, as if all ready for a start at the *breaking-up*.

Sometimes, even in the unnoticed lap of the dying year, a few flowers of earth glisten before the almost unconscious eye. They are either too early or too late, and we take no note of them, for they fail to awaken our sympathies. They may be like, *they are like*—gifts to a dying man—success, when hope has died away and cannot be awakened—like joys that might once have charmed us in fancy's younger hours, they now only mock the deadened heart steeled by disappointment, and so encrusted by the rust of care, that imagination finds no pulse to throb to its appeal. The flowers of youth, the flowers of spring, *these* are worth possessing; they inspire hope, they promise joy, they picture love, they portray in their fragrance and lustre beauty and happiness; but the flowers of winter are like the dregs of the bowl: who cares to drink them?—age may indeed “play with flowers” in its second childhood, amidst misty and fitful gleams of memory, but like the spoiled magnet they *attract* no longer—the charm is gone, and no bright vision wakens up, inspired by their contact. To pluck an opening flower, to give or to offer it at the shrine of beauty, might once have thrilled the soul to extacy; but, from the shrivelled and benumbed hand of age, who cares to pluck a flower, or who exists to deem it worth while to present one—take them away!—So the year fades with all its “dreams of greatness,” and withered leaves and dead stalks, like prostrate hopes, are its appropriate accompaniment.

Yet notwithstanding all the desolation that may be pictured or imagined to exist out-of-doors, it is not, however, to be forgotten that

“The love-lit winter home,”

has peculiar charms at this period, and fortunately the “Botanical Looker-Out,” is licensed to glance at, if not to mingle in, the pleasures of the season, when he looks round and sees the market-place overspread with glistening broad-leaved *laurel*; tortuous *ivy*, glossy-leaved and black-berried; *holly*, glorious, secure, and long-enduring, with its curling spinous leaves, and thick-clustered scarlet berries; and boy after boy, laden and overwhelmed beneath the weight of toppling bushes of white-berried *mistletoe*. Still, then, old customs endure; there is a demand now for *evergreens* at this season, as there ever has been, from the days of the sylvan Druids, downwards—aye, and “in the old times before them;” and yet, strange to say, this poetical clinging to old observances remains only in the middle, or, indeed, more exclusively, in the lower classes of society. Perhaps the *Botanic Garden*, or the *Botanical Register*, with their coloured plates, may adorn the drawing-rooms of the wealthy cultivators of science, the green-house bouquet sparkle in the china vase, or hyacinths stud the sideboard, in their coloured glasses: but the bright *holly*, the green *ivy*, and the white-berried *mistletoe*, with all their mirth-inspiring associations, are banished to the hall, the kitchen, and the cottage. Here, and in the song of the poet, they take their refuge; and, as even the *symbol* of mirth and enjoyment, charms the mind, so the cottager, hoisting the old-remembered evergreens, fondly fancies, that at the name of *Christ-*

mas, he is entitled to participate in that annual rejoicing, which he has been taught angelic bands once proclaimed to shepherds on the plains of Bethlehem, and which, he, for his part, has no wish to forego.

“Glad Christmas comes, and every hearth
 Makes room to give him welcome now;
 E’en want will dry its tears in mirth,
 And crown him with a *holly* bough.

* * * * *

Each house is swept the day before,
 And windows stuck with evergreens;
 The snow is besom’d from the door,
 And comfort crowns the cottage scenes.

Gilt *holly* with its thorny pricks,
 And *yew*, and *box*, with berries small,
 These deck the unus’d candlesticks,
 And pictures hanging by the wall.”*

After all our looking-out, then, we must now look in; there the festal board, the cheerful fire, and the recollections of past enjoyments in the fields and woods, may reconcile us to our curtained pavilion; and the roar of the external storm, and the fierce patter of the rain, shall only heighten the luxurious felicity of our easy chair—for now, after many a thoughtful pace of wood and lawn, and many a struggle with the winds and clouds, by earliest dawn, at noon, and dusky eve, our “web is wove,” and nought remains of leaf or flower, to tempt our further movements;—

“The fields that *lately* bloom’d and smil’d,
 Are flowerless, desolate, and wild;
 Cold as Despair’s unceasing tears,
 And silent as departed years.”

Here, then, we pause, in accordance with the plans

of Nature, prepared to renew our explorations at a future time; for let it be borne in mind, that the beauties of vegetable Creation can never be sufficiently investigated at one transient view. In this respect the wonder-working hand of Divine Providence is strikingly manifested to the botanist. Long as he may reside at any particular spot, he will always find some *fresh* plant, year after year, presenting itself to his notice, and, occasionally, so numerous will these strangers appear, that he will feel the greatest surprise that they could have escaped his observation before—and yet, strange to say, years may again elapse before they present themselves, and, perhaps, in the same locality, never. This should be a hint to the Botanical Explorer never to neglect gathering an unknown plant the *first time* it is noticed, under the deceptive hope that a more favourable opportunity may occur. The investigation of Nature's vegetable beauties has always in some degree the charm of novelty for the enquirer, who sees the landscape under every change of weather, and tracks the flower as well in the gloomy tempest as the sunny gleam. Thus the excursion awakens observation and opens the mind to reflection, while the abstraction from care which the scene bestows, exercises a poetical if not a hallowed influence. As one well authenticated fact is worth a hundred theories, so a curious observation, treasured in the memory, will, in all probability, be more likely to lead the mind to elaborate study and minute investigation, than the mere statement of the laws of vegetable organization laid down with dogmatical precision, or the enforcement of any peculiar system loaded with harsh verbiage, painful and annoying to

the recollection. Hence I have rather aimed to direct the student's attention in the *first* instance to the fields of Nature in their novelty and beauty, implying the after *study* of those objects, rather than to turn to Nature after imbibing the systems of Man. Let us be *first pleased*, and then instructed. Yet to system we must turn at last, and as it is an object of importance in any study easily to ascertain the names of the objects that come under examination, let the student by all means take the Linnæan classification for his primary guide, the facility here given to naming plants being far greater than in any other, as respects the Phanerogamous tribes.*

On this point it is needless to dilate further, for although in the present day the "Natural System" has been lauded to the skies as the most philosophical method of ascertaining the properties and affinities of plants, while the Linnæan has been proposed to be only remembered as a system that has passed away, I do not hesitate to declare that the humble collecting Botanist, seeking chiefly for pleasure and delight, in continually coming upon "some little document of poetry in the blossomed hawthorn, the daisy, the cow-

* Let it be remembered that I have no wish to *depreciate* the Natural System, which the professor and systematic botanist, with a life to devote to the subject, must necessarily study—but I think few can master its intricacies in the first instance without a sacrifice of time which every lover of vegetable nature has not to spare, even if there was but one accredited "Natural System," instead of every writer attempting changes to fabricate something more to his own liking. As a case in point I may remark that I once came in contact with a gentleman who had heard lectures on the Natural System from learned Professors, and well understood theoretic botany and vegetable physiology, but having become a family man, he told me he wanted to inform his children the names of the common wild flowers occurring by every hedge side, and felt himself unable to do so. Under my advice he soon found the Linnæan system a ready key.

slip, the primrose, or some other simple object that has received a supernatural value from the muse,"*—must be contented with the simpler references and more practically useful appliances of the Linnæan;—at least until he is familiar with the common vegetable forms, or has the happiness to have abundant time for closet botanical study and patient microscopical investigation at his disposal. It has indeed become usual with the advocates of Natural Systems to assert strangely and inconsistently enough that Linnæan botany leads only to a knowledge of names, forgetting the heavy catalogue of names they themselves inflict upon the overloaded memory of the student. The charge is most absurd, since the name of a plant is a key that conducts to the various works where a full description may be found of every thing known concerning it. This is the primary thing wanted, and as Dr. DRUMMOND has well remarked—"to ascertain a plant when seen, and learn its scientific appellation, is the very first and the most important step to all botanical knowledge, and, in leading to this, the system of LINNÆUS leaves every other at an immeasurable distance."*

These reflections will prepare us for another botanical campaign in the Spring, when we can once again look out upon vegetable structures with renewed activity; the season now calls us to the timbered hall of some old hospitable farm-house, where the spirits of the grove shelter like ourselves in view of the hearth's genial blaze; for powdery snow noiselessly

* Sketch Book.

* *Observations on Natural Systems of Botany.* By JAMES L. DRUMMOND, M.D., p. 49.

falling spangles the country far and wide, and the frozen north revels in glittering uniformity.

“ If aught remains of loveliness,
Of summer’s charms in winter’s dress,
’Tis in those lightsome shrubberies seen,
Where the young fir’s undying green
Peeps out the cumbering snow between ;
’Tis in those laurels bright and bare
Shaking their stainless load in air ;
’Tis in those shining hollies found,
With coral berries studded round ;
And those proud oaks, upon whose breast
The saffron leaves still love to rest.”

Looking out upon such a scene beneath a friend’s social sheltering roof, the bright evergreens on the walls typifying the past and the present, wintry glooms sink upon the face of nature unheeded, and the Christmas feast slowly, joyously, yet pensively, passes away.

Thus the country is shrouded from view in its brumal winding-sheet, and beauteous as is the spectacle of unstained universal snow coating meadow, wood, and mountain to the far horizon, yet before a cutting north-east wind drifting the powdery frozen chrystals sharply along, all out-door botanical investigation must cease. But if vegetation be hidden and apparently dead, it is only to revive again ; and if our investigations close with the year, they must revive with another. December is indeed the RAMINUDIAN or BARE-BOUGH MONTH ; for we have watched the budding verdant branches through a year of storm and sunshine till they are denuded of every leaf. Yet if we study their forms even now, and notice the slightest of their sprays, incipient hopes yet appear,

and amidst the dark intertwining skeleton of ramification, there is the rough outline that shall shape the future picture of frondescence. Thought and hope revives in like manner;—the scenes we have pictured and the rambles we have taken may seem for a time to lose their colours and be bare as the December bough, but awakened memory robes them again.

By mountain, haunted stream, or sacred grove, still will our foot-steps stray as the vales are strewed with flowerets or the seasons take their wonted round, nor can storm or flood turn us from our purpose to moralize along the cowslip-scented or leaf-strown path. We have plucked roses in the sunny bower, “babbled o’ green fields” by the river’s copsy brink, we have whispered instruction on the lonely shore, and (start not fair ones) murmured of love in the moonlit hazel walk. Flowers may fade and summer-days may wane, but the wreath we have here gathered is a *perennial* one, that will revive month after month, in after years, like the undying moss at the touch of moisture whenever it is applied to at the proper season. Our researches in the fields with nature will remain then in the memory, ever ready to be appropriated when the voice of Spring, or a sound or thought of landscape poetry wakens exploration up again in our minds.





by

